A Post-Graduate Lecture

ON

WOUNDS OF THE CILIARY REGION AND THEIR TREATMENT.

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GENTLEMEN,—It so happens that within the past few months I have had under treatment in the West London Hospital a succession of cases of wounds of the ciliary region, and this fact having naturally impressed itself upon my mind I thought that I could not better employ your time this afternoon than by making some observations upon this interesting subject.

Of all the traumatic lesions which befall the eye it is beyond dispute that the treatment of those which involve the ciliary region affords the most interest, speculation, and satisfaction to the modern ophthalmic surgeon. The reason of this is not far to seek. Such lesions in former times were always associated with a notorious record for evil-doing. It was not that the wounds themselves presented any special difficulty in treatment or that they were always destructive to the injured eyes, but it was the disastrous effects to which they were wont to give rise in the healthy or fellow eye which endowed them with such an unenviable notoriety.

In the days of our forefathers, of course, nothing was understood of the etiology of sympathetic ophthalmia. According to Brondeau the first reference which occurs to cases of the kind is to be found in a note recorded by a practitioner in the latter part of the seventeenth century. The note is as follows: "Yesterday I saw the daughter of a certain official in Cimbria whose right eye had been blinded by a wound from a knife. The eye itself got well, but without sight, and the left eye, which was formally a healthy one, became the seat of incipient cataract." Not much is left to the imagination in this brief, though graphic, record, and it forms the beginning of a long series of disastrous records showing how one eye by means of sympathetic ophthalmia can fatally destroy the vision in the other. The dawn, however, of our knowledge of the disease arose when Mackenzie published his observations upon the subject in 1844. His description of it is as follows: "The general nature of the sympathetic affection is inflammation, not of the iris alone, but involving the whole of the internal texture of the eyeball, especially the crystalline lens and vitreous and retina, coming on generally in five or six weeks after an injury of the opposite eye, and terminating most frequently in atrophy and total amaurosis of the eye secondarily affected." Mackenzie's observations were based upon his experience of the disease as it was met with among his patients in the Glasgow Royal Infirmary, and it is remarkable how accurate his conclusions drawn from that experience have subsequently proved.

In passing I may remark that the maintenance of the integrity of the ciliary region is a matter of supreme importance to an eye; indeed, the vitality of the organ depends upon it. This is not difficult to understand when we recollect that the soul, so to speak, of an eye, as represented by its vascular and nerve distribution, resides in the ciliary processes. In this connexion you will remember how atrophy of an eyeball—or, as it is fancifully called in the text-books, "phthisis bulbi,"—may follow injuries or chronic inflammation of the ciliary region. An eye may make a good recovery from a severe wound of the ciliary region for a time, but it may happen that in the course of the secondary changes associated with the cicatrisation of the wound the circulation of the blood through the ciliary processes may be so interfered with as to disturb the normal nutrition of the organ as the result of which atrophy of the globe follows. It is as well to remember these facts inasmuch as they have an important bearing upon the subject to which I am now inviting your attention.

I propose to classify wounds of the ciliary region into three varieties: (1) simple penetrating wounds; (2) those associated with prolapse of the iris and wound of the cornea; and (3) those associated with prolapse of the iris, wound of the cornea, and traumatic cataract. The first variety is the least common, inasmuch as it usually occurs that the ciliary region being limited in extent the wound involves one or other of the adjacent structures. Only within the last few days, however, a woman came to my out-patient room with a punctured wound of the ciliary region caused by the stab of a darning needle. The accident had happened five days previously and when I came to examine the eye I found the globe to be very painful and deeply injected, the vision being *nil*. These signs pointed to the extreme probability of commencing panophthalmitis. I strongly urged the woman to come into the hospital and she agreed to do so on the next day, but she did not show herself again. The danger of punctured wounds of the eye, whether in the ciliary region or not, is mainly their liability to septic infection. When pathogenic micro-organisms, such as the staphylococcus albus or aureus, or the pneumococcus, are introduced into the vitreous—one of the best cultivation media that we know of—the result, panophthalmitis, is not to be wondered at. In the majority of cases, therefore, everything turns upon whether the foreign body causing the wound is or is not septic. If septic organisms are not carried into the eye the chances are all in favour of a good result ensuing; on the other hand, an eye is almost certainly doomed into which septic infection has been conveyed.

In the management of wounds of the ciliary region generally attention may be drawn to the following points. In the first place, it is essential that they should be seen by the surgeon as early as possible after their infliction, and, secondly, they should be rigidly treated with antiseptics from the beginning. The importance of seeing the wounds early is obvious, for the less time that elapses between the receipt of the injury and its antiseptic treatment the less opportunity is there for pathogenic infection to occur and the greater is the chance of preventing any harm ensuing therefrom. So far as the observance of antiseptic precautions is concerned in the treatment of all penetrating wounds of the eye the following rule has obtained now for some time in my practice at the West London Hospital. The first step is that of thoroughly cleansing the skin of the orbital region of the affected eye with a warm solution (1 in 2000) of chinosol; and here I may remark, in passing, that a good deal depends upon the antiseptic which is employed. By some surgeons it is believed that a solution of boric acid is all that is necessary in these cases, but it may be pointed out that no general surgeon relies upon such an antiseptic when called upon to cleanse a wound, and if boric acid is not deemed to be a sufficiently trustworthy antiseptic in general surgery why should an exception be made in regard to the treatment of wounds of the eye? It may not be possible to sterilise completely the conjunctival sac, nevertheless I believe it to be quite an easy matter to keep wounds of the eye free from pathogenic infection by means of well-regulated antiseptic measures. The next step in the systematic antiseptic treatment is that of thoroughly douching the conjunctival sac of the injured organ with the chinosol solution, and this having been done the eye may then be carefully examined with the view of ascertaining the precise nature of the injury preparatory to the adoption of the special treatment which the case may happen to demand. In the subsequent treatment the eye should be douched twice daily with a 1 in 4000 solution of chinosol and eserine drops of the strength of half a grain to an ounce of water should be instilled. Under favourable circumstances—that is to say, in the absence of signs of septic infection—the injection of the globe will be found to subside gradually and in such cases a good result may be anticipated. On the other hand, if after the lapse of a fortnight or so there are no signs of improvement, the eye becomes painful and tender on palpation, the injection increases, and the vision vanishes, the probability is that enucleation will be required owing to the commencement of panophthalmitis.

In the case of wounds of the ciliary region associated with prolapse of the iris after every antiseptic care has been taken the eye should be placed under the influence of cocaine. A spring stop speculum should then be inserted between the lids and with a pair of sterilised forceps the projecting portion of the iris should be gently drawn out and snipped off with a pair of sterilised scissors close to the wound. The

object of cutting off more of the iris than is prolapsed is in order to ensure that the resiliency of the structure will cause it to contract well within the anterior chamber—away, that is, as far as possible from the edges of the wound. The evil of a wound associated with prolapse of the iris is that as long as the latter remains outside the cornea it establishes a direct communication between the outside and the inside of the eye, thus exposing the organ to many dangers, septic and otherwise. It is essential, therefore, as soon as possible to excise the projecting portion of the iris in order that any untoward complications likely to arise from its protrusion may be avoided.

I now come to wounds of the ciliary region complicated with traumatic cataract. These are the most unfavourable of all so far as the ultimate result to the eye is concerned. Especially is this the case in children. The eye in children appears to be much less able to recover from a wound of the ciliary region complicated with traumatic cataract than is the case in adults. Indeed, I may say that in my experience such injuries to the eye in children frequently terminate in enucleation. The treatment in such cases is mainly of the expectant description. The same antiseptic precautions having been observed as in the former instances, the eye should afterwards be kept under the influence of atropine. The object of this is partly to allow more room for the swelling of the cataractous lens and partly to facilitate the escape of the soft lens matter into the anterior chamber. The wound, however, having healed and the aqueous having been re-secreted the anterior chamber may become so full of lens matter as to bring about glaucomatous tension; consequently in these cases it is very essential to take careful note from time to time of the condition of the tension. In a case of traumatic cataract which was recently under my care which followed the puncture of the lens through a penetrating wound of the cornea caused by an iron nail the glaucomatous condition which ensued was such as to give rise to very acute suffering. I made, however, an upward section, performed an iridectomy, and let out a large quantity of soft lens matter, and by this means immediate relief was afforded. In the primary treatment, then, of cases of traumatic cataract, the condition of the tension of the injured organ is one of the main points to which attention should be carefully directed. If the case progresses favourably the lens matter will be gradually absorbed and the eye will recover. But the sight which may be retained will never be of much use as long as the other eye remains sound, inasmuch as the loss of the lens has the effect of destroying binocular vision.

In earlier days the first question which claimed consideration in cases of wound of the ciliary region was whether or not the injured eye should be immediately enucleated, and the reason for this was the then well-grounded fear of the ultimate development of sympathetic ophthalmia. Thus no doubt it often came to pass that in view of this possible catastrophe many eyes were sacrificed which should have been saved; and, on the other hand, many eyes were placed out of peril which would otherwise have been sympathetically destroyed. In the present day, however, the fear of sympathetic ophthalmia in these cases may be said to have passed away. Generally speaking, the integrity of the anterior part of the eye, and not the fact that the wound is in the ciliary region, now forms the guiding-line in determining whether or not enucleation should be performed. If the nature of the wound points to the possibility of the recovery of retention of useful vision—if, that is, the cornea be uninjured in the papillary area, the lens be intact, and the lesion be fairly limited in extent—the question of the situation of the injury need not call for consideration. On the other hand, the treatment of the case assumes quite a different aspect if the eye has clearly been irrevocably destroyed as an organ of vision. In these instances the necessity of primary enucleation admits of no dispute. No object would be gained by delaying the removal of the organ under these circumstances. But after all wounds of the ciliary region it is necessary to remember that the vision is generally very defective apart from the complications to which special allusion has been made. Frequently it is reduced to counting fingers within a few inches from the eye or even to a mere perception of light. The cause of this is the extravasation of blood which takes place into the vitreous, probably from injury to the ciliary processes. However, with the lapse of time, provided that the eye recovers, the blood will be gradually absorbed, and as the vitreous begins to clear large masses of blood-clot will be observed with the ophthalmoscope floating about in that medium. A well-marked instance of the recovery of vision in this regard occurred at the West London Hospital a few months ago. A barman, in whose hands a soda-water bottle had burst, causing a wound of the ciliary region and lower part of the right cornea with prolapse of the iris, was admitted under my care. The vision in the injured eye a few days after the accident barely amounted to counting fingers at six inches. Under the treatment, however, to which I have referred the eye made a perfect recovery and the patient can now read J. 1 and see $\frac{6}{6}$. In another case which was in the hospital about a month ago a soda-water bottle had burst in the hands of a boy, aged 16 years, inflicting a large jagged wound in the corneo-scleral junction, involving two-thirds of the ciliary region on the inner side. The eye was quite collapsed when the patient was admitted into the hospital, so much so that there appeared to be but little chance of saving it. Despite, however, the severe injury the eye made an excellent recovery. The tension is now normal, and so perfect has been the union that it is only with difficulty that the line of the wound can be traced. Moreover the vision is rapidly improving. When last seen the patient was able to see $\frac{6}{9}$ and the blood was gradually disappearing from the vitreous.

A point to which attention may now be directed is that with reference to the use of sutures in the treatment of penetrating wounds or ruptures of the globe. Are sutures necessary? Personally I never resort to them, believing that directly loss of tension ensues as the result of the escape of the vitreous the tendency is for the edges of the divided sclerotic and conjunctiva to come together and to unite long before the tension can be restored sufficiently to imperil the integrity of the union. In no case have I ever inserted a suture and in no case have I ever regretted not doing so, and for the reason just given I deem any form of suture to be quite unnecessary.

In the course of this lecture I have referred to the tension twice—in the first place in connexion with atrophy of the globe, when it is much lowered, and secondly, in cases of traumatic cataract, when it is apt to be much increased. I may now add a few more words upon the same subject. If in the course of the treatment of wounds of the ciliary region—or for that matter any penetrating wound of the globe—the tension remains low, the eye may be regarded as doomed. Lowered tension, I believe, in these cases is generally due to liquefaction of the vitreous caused by commencing panophthalmitis. The vitreous is an ideal cultivation medium for pathogenic organisms, and just as the staphylococcus and other organisms of a like nature cause liquefaction of the medium upon which they are cultivated in the laboratory so it is reasonable to conclude that these organisms cause the vitreous to become fluid in the circumstances under which they gain entrance into the eye. I do not advance this suggestion as a fact, nevertheless there is a reasonableness about it which makes it both interesting and possible. It might be argued, however, that the lowered tension was due to the loss of vitreous occurring at the time of the receipt of the injury. This would be true for the first few days after the accident, but the explanation would not apply to the case subsequently to that period or when the wound had united. The abhorrence, according to the old saying, that nature shows for a vacuum is wondrously illustrated in the case of ocular injuries. Take the simplest example—that in which the aqueous has been lost as the result of which the cornea becomes flaccid. In a few hours or less the aqueous is re-secreted, not too much but just sufficient to restore the anterior chamber to its normal dimensions. Then take the more serious example—that in which there has been much loss of vitreous, such as in the case of the boy to whom I have already referred where the globe became quite collapsed. Under these circumstances experience teaches that nature speedily sets to work to get rid of the vacuum. Fluid is secreted which takes the place of the vitreous and the process continues until the normal tension is reached and the contour of the globe is restored. Such restoration, however, of the globe is only possible in those cases in which the integrity of the ciliary region has not been seriously interfered with.

The next and last point to which I shall allude is that with reference to sympathetic ophthalmia, and at the outset I may remark that the observations which I shall make upon the subject are based upon the experience gained in those

cases in which the disease might have occurred but did not do so. In the course of a lecture given in this place in 1898 [1] I expressed the conviction that sympathetic ophthalmia would be an impossible complication of eye surgery were wounds of the organ generally, and those of the ciliary region in particular, to be treated from the first with every antiseptic precaution; and in this connexion it is significant to remember that before Listerism became part of the professional creed of surgeons sympathetic ophthalmia was of frequent occurrence, but on the other hand, ever since antiseptics have been employed in eye surgery the disease has become more and more infrequent, until nowadays it might with truth be described as an ocular pathological curiosity. That these are the undoubted facts lend strong support to the belief that the disease owes its origin to a pathogenic organism, more especially as we can point to the analogy of another disease upon the occurrence of which Listerism has had precisely the same restraining influence. No one, for example, can dispute that tetanus has been banished as a complication of surgical wounds owing to the aseptic and antiseptic measures resorted to by operating surgeons. A ghastly tale is told of a surgeon in olden days who performed 10 consecutive amputations and each of the patients died from tetanus. The blame for these awful catastrophes was attributed by the surgeon to his saw, which had been used in a case of traumatic tetanus and which, of course, had not been properly cleansed afterwards. At present the question of whether or not sympathetic ophthalmia is a microbic disease is giving rise to a good deal of discussion. Some of those who hold that the disease cannot be of microbic origin point to the fact that no germ of sympathetic ophthalmia has been discovered, arguing that a germ which cannot be inoculated, cultivated, or stained by any known method in the present day cannot possibly have any existence. But such an argument must be obviously wrong, for it implies that bacteriology has already reached a stage of finality beyond which it is futile to expect that further progress can be made. The failure of bacteriology up to the present to isolate a specific organism of sympathetic ophthalmia cannot surely be taken as evidence that no such organism exists. Are we to assume that measles, scarlet fever, and certain other zymotic diseases are not microbic in origin merely because bacteriology has failed to show the specific germ upon which they depend? The reasonable conclusion at which to arrive in explanation of these cases is that the technique of bacteriology is at fault—that the laboratory has failed at present to elaborate methods of research by which the presence of certain micro-organisms can be demonstrated. In opposition, again, to the microbic origin of sympathetic ophthalmia the curious view has been advanced that the disease is not met with when the eye is most surrounded with organisms, such as in cases of panophthalmitis and gonorrhœal ophthalmia. But to argue thus is to suppose that any organism was good enough to cause sympathetic ophthalmia, ignoring the fact that it would be just as wise to believe that the gonococcus was capable of producing tetanus, the tetanus bacillus capable of producing septicæmia, or the staphylococcus aureus capable of producing diphtheria. Deutschmann, when experimenting upon animals with a view to establish his migratory theory of the disease, injected pus organisms into their eyes for this purpose. In no case was he able to produce artificial sympathetic ophthalmia, but he succeeded very well in causing the animals to die from general septic infection. Possibly, as my friend and colleague, Mr. Lenthal Cheatle, suggests, sympathetic ophthalmia may be the product of many different micro-organisms, just like synovitis, pyæmia, and other diseases, and in any case, such a suggestion as this undeniably opens out a wide field for bacteriological inquiry, far transcending in its scope anything which has previously been attempted. Meanwhile, in the absence of more precise scientific data, I think that we cannot be far wrong in assuming that sympathetic ophthalmia is a microbic disease, that as such it is preventable, and that the secret of its prevention is the strict observance of aseptic and antiseptic principles in eye surgery. At all events this is a sound, practicable, and reasonable hypothesis upon which to act, no less in the interests of the injured organs than in those of the fellow or healthy eyes which might become sympathetically affected.

[1] THE LANCET, Oct. 22nd, 1898, p. 1043.

THE INFLUENCE ON HEALTH OF CHEMICAL PRESERVATIVES IN FOOD.

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(Concluded from p. 1452.)

INFLUENCE OF FORMIC ALDEHYDE ON THE DIGESTIBILITY OF FOOD TO WHICH IT HAS BEEN ADDED.

THE results of experiments dealing with the digestibility of food after it has been kept for a time in contact with different amounts of formic aldehyde have been published in the papers already referred to by Rideal and myself and by Bliss and Novy. The results of our own experiments are arranged in Table VII.

On comparing the results in Table VII. with those obtained in the similar experiments in Table IV., in which latter the formic aldehyde was added at the same time as the enzyme, it will be seen that in addition to any possible effect which the preservative may have on the action of the enzyme it also renders the preserved food itself less digestible. The following figures taken from Tables IV. and VII. indicate the amount of retardation caused in the digestion of beef-steak by the gastric enzymes; control, no preservative, 100; preservative (1 in 50,000) added with enzyme, 97·63; preservative (1 in 50,000) added 24 hours before digestion, 90·38. The interference with the digestion of casein in milk is, as with boric mixture, not quite so marked. Thus, using a pancreatic extract, control, no preservative, 100; preservative (1 in 50,000) added with enzyme, 97; preservative (1 in 50,000) added 20 hours before digestion, 94·1. Bliss and Novy have investigated the influence of formic aldehyde on the digestibility of fibrin and casein kept in contact with it for longer or shorter periods. As in the previous experiments of these writers the proportion of formic aldehyde used was high as compared with the amount necessary for food preservation. Their results, using proportions of the preservative varying from 1 in 100 to 1 in 2500, are summarised as follows: "Fibrin is altered by formaldehyde and is then less easily digested by pepsin and trypsin. Papain is apparently unable to digest fibrin even when this is exposed to a very weak formaldehyde (1 in 1000) for a very short time. The casein of milk, on contact with formaldehyde, undergoes rapid alteration and as a result is not coagulated by rennet or but very slowly. Such altered casein, like similar fibrin, is not readily digested by the proteolytic ferments. The longer the formaldehyde acts on casein and on fibrin the more marked is the result." Simons [1] carried out a series of experiments as to the effect of formic aldehyde on the prolonged digestion of proteids. Control experiments were carried out by subjecting the proteid to the action of the enzymes until the last trace of the substance had undergone digestion. In the case of the pancreatic experiments this complete proteolysis occupied 12 hours. At the end of this time the amount of undigested proteid was estimated in the experimental mixtures containing various amounts of the preservative. Simons's results show that formic aldehyde present in the proportion of about 1 in 2000 had a distinctly retarding influence on pancreatic proteolysis, whilst in the proportion of about 1 in 300 it completely inhibited digestion. It was found, however, that the preservative had no apparent effect on gastric proteolysis.

I have myself carried out a number of experiments testing the influence of formic aldehyde on rennet coagulation of milk. For this purpose two commercial extracts of rennet were used, and apparently identical results were obtained with the two preparations. The experiments were carried out by adding to 45 cubic centimetres of milk in short wide test-tubes the several quantities of formic aldehyde mentioned in the table below, together with sufficient normal saline solution to bring the total volume up to 50 cubic centimetres. Table VIII. gives the results obtained in two series of such experiments; in Series A two cubic centimetres of rennet extract were added at the same time as the formic aldehyde, in Series B the milk and formic aldehyde were

[1] Journal of the American Chemical Society, 1897, vol. xix.

TABLE VII.—INFLUENCE OF FORMIC ALDEHYDE ON THE DIGESTIBILITY OF FOOD TO WHICH IT HAS BEEN ADDED.

No.	Details of experiment.	Control, no preservative.	Proportion of preservative added to food.			
			1 in 100,000.	1 in 50,000	1 in 10,000	1 in 2,500
1	15 grammes of pressed beef-steak, allowed to stand for 24 hours in 100 c.c. of water with formic aldehyde; then digested with pepsin for one hour at 38° C.; dissolved nitrogen estimated in filtrate ...	100	91·45	90·38	85·25	81·19
2	50 c.c. of fresh milk with formic aldehyde added, allowed to stand for 20 hours; then digested with commercial extract of pancreas (No. 1) for half an hour at 38° C.; undigested casein precipitated, and dissolved nitrogen estimated in filtrate	100	94·6	94·1	91·4	—

TABLE VIII.—INFLUENCE OF FORMIC ALDEHYDE ON RENNET COAGULATION OF MILK.

—	Time.	1. Control milk; no preservative.	2. Milk with 1 in 40,000 H.COH.	3. Milk with 1 in 20,000 H.COH.	4. Milk with 1 in 10,000 H.COH.	5. Milk with 1 in 5000 H.COH.	6. Milk with 1 in 1000 H.COH.
SERIES A. Preservative added at same time as the rennet.	30 minutes.	Good firm clot.	As No. 1.	As No. 1.	Thickly viscid.	Viscid, but not quite so thick as No. 4.	No change.
	2 hours.	—	—	—	—	—	Fairly firm clot.
	6 „	Complete separation of whey.	As No. 1.	As No. 1.	Separation of whey as in No. 1, but clot a little less firm.	As No. 4.	No separation of whey.
SERIES B. Preservative added to milk and mixture allowed to stand for 48 hours. Control milk No. 1 kept in ice for same period.	30 minutes.	Good firm clot.	Commencing clotting.	As No. 2.	No change.	No change.	No change.
	35 minutes.	—	Good firm clot.	As No. 2.	„	„	„
	45 minutes.	—	Clot not quite so firm as No. 1.	As No. 2.	„	„	„
	60 minutes.	—	Clot now seems to be quite as firm as No. 1.	As No. 2.	Thick viscidity of milk.	Viscidity less thick than with No. 4.	„
	90 minutes.	Separation of whey progressing.	Identical with No. 1.	Separation of whey just a little less advanced than in Nos. 1 and 2.	Firm clot, separation of whey just commencing.	Firm clot, no separation of whey.	„
	2 hours.	—	Identical with No. 1.	Amount of separated whey still a little less than in Nos. 1 and 2.	Amount of separated whey a little less than in No. 3.	As No. 4.	„
	4 „	—	Identical with No. 1.	Identical with No. 1.	Identical with No. 1.	Identical with No. 1.	„
	22 „	—	—	—	—	—	Clotting has occurred during night, but there is no separation of whey.

allowed to stand in contact for 48 hours before the same quantity of rennet was added. The tubes were then kept at a temperature of 37° C., and the changes which occurred were compared with those in control tubes containing milk and rennet extract but no preservative.

A number of experiments such as those in the table were carried out, and I came to the conclusion that formic aldehyde added to milk in the proportion of 1 in 40,000, and whether added at the same time as the enzyme or from 24 to 48 hours before it, had practically no influence in the direction of altering the progress of normal coagulation. With higher proportions of formic aldehyde, up to 1 in 5000, the coagulation was retarded to the extent shown in the table; but the final result was the same as in the controls, indicating that the action of the preservative in these proportions was of a retarding rather than of an absolutely inhibitory nature. In the proportion of 1 in 1000 the preservative had a very disturbing influence on coagulation. In one sample of milk out of many examined somewhat different results were obtained. The preservative was added at the same time as the ferment and the tubes after being kept at a temperature of 37° C. for an hour were left at room temperature for 24 hours; at the end of that time the milk containing 1 in 10,000 of the preservative had not formed a coherent coagulum, and there was no obvious change in the sample containing 1 in 1000. Series A and B were, however, quite typical of the results obtained in all the other experiments, and the exception mentioned was probably due to accidental causes. Each sample of milk was tested for the presence of formic aldehyde before commencing the experiments.

THE NATURE OF THE ACTION OF FORMIC ALDEHYDE ON PROTEID SUBSTANCES.

A review of the evidence brought forward will readily lead to the conclusion that formic aldehyde, even when present in certain comparatively small proportions, has a definite action in retarding the digestion of proteid material by the natural enzymes. And it is obvious that this hindering of the activity of the proteolytic process may be due to one or both of two causes: either, whilst the proteid remains unaltered so far as its digestibility is concerned the enzyme may be so altered that its specific activity is weakened, or the proteid may undergo such a change that it is rendered less easily digested by the enzyme which has itself remained unaffected. As to the action of formic aldehyde on the enzymes themselves the experiments of Bliss and Novy[2] are fairly conclusive. The enzymes of animal origin have been commonly supposed to be of a proteid nature, and Bliss and Novy's investigations were undertaken in order to ascertain whether formic aldehyde had a definite action on these enzymes, such as it is known to have on the typical proteids. Solutions of various enzymes were subjected for long periods to the action of formic aldehyde, the latter

[2] Loc. cit.

being present in the solutions in various proportions. The specific activity of the enzymes thus treated was then tested by appropriate experiments; and a large number of carefully carried out experiments showed that formic aldehyde in solutions of much greater strength than that represented by a milk containing 1 in 40,000 of the preservative has no action whatever on pepsin or rennin. Thus it was found that a 5 per cent. solution of formic aldehyde acting for three weeks had no effect upon the activity of pepsin. Rennin was not affected by a 4 per cent. solution acting "for several weeks." Trypsin was altered by formic aldehyde in a 1 in 500 solution to such an extent that "digestion of fibrin did not take place at all, or but very slowly ..... when present in so small an amount as 1 in 1000 digestion of fibrin is greatly retarded." Amylopsin was but little, if at all, affected by solutions of 1 in 1000, but stronger solutions decreased the activity of the enzyme or destroyed it completely. Ptyalin was affected by formic aldehyde in much the same way as was amylopsin. Of the vegetable enzymes malt diastase was not affected injuriously by formic aldehyde in the proportion of 1 in 250, whilst papain was very quickly altered by a 1 in 1000 solution.

So far, then, as the two most important enzymes—pepsin and rennin—connected with milk digestion are concerned, it may safely be assumed that they are not themselves affected by the amount of formic aldehyde necessary for milk preservation; and for all other proteid food-constituents pepsin is also the most important enzyme to be considered in the present connexion, since the formic aldehyde used in the strength suggested for milk preservation will certainly have become much reduced in amount by the time that the contents of the stomach have entered the duodenum and come into contact with the pancreatic enzymes.

The retardation of the digestion of proteids must, then, be supposed to be principally due to the fact that formic aldehyde has such an action on albuminous and similar matter that the latter becomes less easily digestible. As to the exact nature of the changes which occur, and because of which the proteid becomes less easily digestible, but little is known at present. The alteration of gelatin may be quoted as a common example of such changes produced by formic aldehyde. If a little formic aldehyde is added to a dilute solution of gelatin no change obvious to the eye occurs; but on evaporating the solution to dryness it will be found that the soluble gelatin has been converted into an insoluble substance termed "formo-gelatin." If a 10 per cent. gelatin jelly is exposed to the vapour of formic aldehyde it is quickly converted into a substance which is insoluble in water and is not liquefied at 100° C. in the water-bath, but which presents no change in appearance except that it has become a little clearer. This action of formic aldehyde on gelatin has been utilised for technical purposes and a similar insoluble transparent substance formed by the action of formic aldehyde on an alkaline solution of casein has also been made use of.

Experiments have been carried out in order to investigate the action of formic aldehyde on egg albumin and serum albumin. These experiments are not yet completed, and the following only gives a summary of what are merely preliminary results. Various albumin solutions have been used; normal saline solutions of both fresh and dried egg albumin, ascitic fluid from various cases, and normal saline solutions of blood albumins. If equal parts of "formalin" (containing 40 per cent. of formic aldehyde) and ascitic fluid, or a 2 per cent. solution of dried egg albumin, are mixed the only immediately apparent change is the appearance sometimes of a scanty faint turbidity. The albumin will, however, no longer coagulate on heating. The clear solution gives a precipitate with hydrochloric acid in the cold and with acetic acid on heating. The clear solution gives a xanthoproteic reaction and also, if the amount of formic aldehyde has been reduced to about 1 in 1000 so that the test can be applied, a biuret reaction. In order to determine the effect of more dilute solutions of formic aldehyde on albumin the following experiments, amongst others, were carried out. To each of 12 test tubes containing eight cubic centimetres of ascitic fluid, or of a solution of dried albumin of known percentage strength, were added two cubic centimetres of normal saline solution containing, except in the case of one tube used as a control, various amounts of formic aldehyde. The amount of the latter was so graduated that the first 11 tubes contained respectively 1 to 9 parts per 10,000, 1 part per 1000, and 1 part per 500, whilst the twelfth tube contained none. The tubes were then heated for 20 minutes in a water bath at 80°C. and the resulting precipitate, if any, of coagulated albumin in each of the several tubes containing formic aldehyde was compared as to opacity against a strong light with the precipitate in the control tube. In experiments with ascitic fluid it was found that at most a very fine opalescence appeared after heating in the tube containing 1 in 500 of formic aldehyde, and that as the amount of formic aldehyde in the tubes diminished so the amount of albumin coagulable by heat was increased, and that before the tube containing 1 part per 10,000 was reached the preciptate was, by the rough test applied, indistinguishable from that in the control tube. In carrying out experiments in a similar way with 2 and 4 per cent. solutions of dried albumin it was found that the amount of albumin left unaltered after standing in contact with formic aldehyde for two hours varied (1) with the amount of albumin originally present in the mixture and (2) with the amount of formic aldehyde added; or, in other words, a certain amount of formic aldehyde could in the time alter only a certain amount of albumin. Repeating the experiments with albumin which had stood in contact with the formic aldehyde for 24 hours the same rule was found to hold good—namely, that in the comparative experiments a certain amount of albumin only was altered by a certain amount of formaldehyde. But the absolute amount of albumin altered was for each tube of the series considerably greater after 24 hours' contact than it was after two hours. If the amount of proteid present in each of such a series of tubes was estimated by Esbach's method it was found to be very uniform in the majority of cases; slight variations, however, in the bulk of the precipitate, as compared with that obtained from the contents of the control tube, did occasionally occur with different strengths of formic aldehyde. And such differences were apparently due to the precipitate being in a more or less finely divided state. The precipitates obtained in such a series of tubes by the addition of hydrochloric acid in the cold or acetic acid and subsequent heating were fairly equal in all the tubes. The precipitate with hydrochloric acid sedimented at the bottom of the tube much more quickly in the solutions containing the higher proportions of formic aldehyde than it did in the control solution or in those containing the lower proportions. The only conclusions which I have so far been able to draw from the experiments are, that the result of the action of formic aldehyde on albumin is the formation of a proteid substance which is not coagulated by heat but is coagulated by mineral acids and by acetic acid and heat, that the interaction of formic aldehyde and albumin probably takes place in accordance with a definite law of combining proportions, but that with prolonged contact the amount of albumin thus altered is increased. And I think I am justified in assuming that it is because of the formation of this proteid substance from the albumin that the retardation of proteolysis in the presence of formic aldehyde occurs. Trillat[3] has stated that the action of formic aldehyde on such proteids as are not coagulable by heat is to render them insoluble. This statement was applied not only to gelatin but to albumoses and peptones, and if correct would mean that the preservative not only retards the digestion of primary albumins but renders their normal digestive derivatives less assimilable. Lapierre[4] has investigated the action of formic aldehyde on proteoses and peptones, and his conclusions differ somewhat from those of Trillat. Experiments were carried out with hetero-, proto-, and deutero-albumoses, and also with pure peptones. Lapierre's materials for experiment were obtained by submitting to artificial digestion egg albumin, fibrin, muscle, and gelatin, and separating out the various products formed; commercial peptones were also used, the different constituents of which were separated out in the usual way. The albumoses and peptones were dissolved in water and formalin, two grammes of the proteid in five cubic centimetres of water with two or three parts of commercial formalin added. The conclusions arrived at were, that formic aldehyde in the cold has either very little or no action at all on such substances, but that it has a very considerable action when the mixture is kept in a water bath at 100° C. Under the latter conditions the substance sometimes becomes insoluble, but in the majority of cases no precipitation

[3] Bulletin de la Société Chimique de Paris, 20 Decembre, 1898, p. 1017.
[4] Comptes Rendus de l'Académie des Sciences, 1899, tome cxxviii., No. 12, p. 739.

occurs. Nevertheless, the change which takes place at 100° C. involved a considerable modification of the properties of all the substances operated on. Proto-albumoses are rendered insoluble, and the precipitate does not dissolve in warm water in 10 per cent. sodium chloride or in sodium carbonate solutions. Deutero-albumoses may or may not be precipitated; some are not precipitated at first, but are converted into proto-albumoses and then precipitated. True peptones are converted first into bodies belonging to the class of deutero-albumoses and then into bodies belonging to the class of proto-albumoses. The precepitates and intermediate products formed from albumoses and peptones by the action of formic aldehyde at a temperature of 100° C. are re-converted into the original hetero-, proto-, or deutero-albumose, or peptone, as the case may be, by being heated at 110° C. in an autoclave for two hours. The formal products undergo normal peptic digestion, but rather more slowly than the corresponding products which have not been treated with formic aldehyde. Lapierre further concludes: (1) that formic aldehyde at a temperature of 100° C. condenses and dehydrates the soluble proteid bodies; (2) that the products formed are still proteids, but of a higher molecular weight than the corresponding original substances; (3) that as the molecular weight of such products increases so does their solubility in water and saline solutions decrease; and, finally, that the phenomena accompanying the change are those of a "progressive regression" of peptones and albumoses back to the original albumin, so that from peptones are formed deutero-albumoses, the latter in their turn being converted into proto-albumoses. Taking all the facts into consideration, (1) as to the actions of formic aldehyde in retarding the digestion of proteids and (2) as to the direct action of formic aldehyde on the proteids themselves, it cannot be said that our present knowledge justifies us in assuming that the influence of formic aldehyde present in the proportion of 1 in 40,000 in milk affects digestion so injuriously that its use should be altogether prohibited on those grounds alone.

THE DIRECT ACTION OF FORMIC ALDEHYDE ON THE TISSUES AND ITS INFLUENCE ON THE HEALTH GENERALLY OF THE CONSUMER.

Formic aldehyde as such has not been used to any great extent as a medicine for internal administration and when so used it has been in such a manner—as an inhalation in the treatment of pertussis and pulmonary tuberculosis—that it is not easy to obtain any indication as to the toxic properties which it might exhibit if administered regularly in a dilute solution. A throat spray containing 1 part of formalin in 500 (formic aldehyde 1 in 1250) has also been used, and may cause slight nausea and vomiting. There are, however, two drugs which have been rather more extensively used and which probably owe any therapeutic action which they may possess to the liberation of formic aldehyde after administration. Paraformaldehyde ($C_2H_4O_2$), formed by the polymerisation of formic aldehyde, has been used by Aronson in doses of from one to one and a half grains every two hours for the treatment of diarrhœa in infants. The drug was so used in 20 cases without producing any obvious ill effect on the patients, and with good results so far as the treatment of the disease was concerned. Aronson also gave from 45 to 60 grains to dogs and took 75 grains daily himself without any obvious bad effects in either case.

Urotropin is another drug which has been used in cases in which the presence of a germicide in the urine is advisable, such as cases of cystitis due to bacterial infection and cases of enteric fever in which the specific bacillus was present in the urine during convalescence. It is a substance which is said to be formed by the action of four molecules of ammonia on six molecules of formic aldehyde, and a full account of its therapeutic action, so far as the disinfection of the urine is concerned, will be found in a paper by M. W. Richardson.[5] According to Richardson urotropin when administered by the mouth is excreted in the urine partly as formic aldehyde and partly unchanged. In the course of an experiment carried out in my laboratory it was found that after the administration of half a gramme of urotropin on each of three consecutive days only formic aldehyde could be detected in the urine, tests with bromine water for the unchanged drug giving negative results. Neither the bacillus coli communis nor the bacillus typhosus would grow in the urine passed on the morning after the administration of one dose, and it therefore must be concluded that the urine contained at least 1 in 7000 of formic aldehyde, this being the limiting strength which inhibits the growth of the former bacterium. In Richardson's cases urotropin was given in doses of ten grains three times a day until the total amount administered had reached as much as 300 grains. In a large number of the cases renal disturbance with albuminuria and casts in the urine were present, but in no such case did the administration of the drug appear to increase the gravity of the condition. In one case only did any bad effect appear from the use of the drug, and in that nausea and vomiting followed the administration of a dose on an empty stomach instead of, as usual, after food. It is evident, however, that so far as its administration to human beings is concerned evidence as to the possibility of any injurious action of formic aldehyde is still incomplete. The most that can be said is that certain amounts, probably much greater than those which would ordinarily be taken daily in a preserved milk, do not as a rule produce any toxic effects.

Action of formic aldehyde on lower animals.—Trillat[6] has reported shortly some results of the action of formic aldehyde on lower animals; he found that 0·53 and 0·66 gramme of formic aldehyde per kilogramme body-weight might be injected into guinea-pigs without producing a fatal result, whilst 0·8 gramme per kilogramme was quickly mortal. In rabbits the intravenous injection of 0·038 gramme per kilogramme body-weight was without apparent action.

Mosso and Paoletti, in a communication to the Royal Turin Academy of Medicine on the Physiological Action of Formalin, give details of an extensive series of animal experiments most of which were carried out with toxic doses. The toxicity of formic aldehyde was tested on frogs by immersing them in solutions of various strengths. The following were the results obtained: immersion in 1 in 250 formic aldehyde solution was followed by death in less than 15 minutes, immersion in 1 in 500 and 1 in 2500 solutions was followed by death in between 30 and 60 minutes, immersion in a 1 in 10,000 solution for one day appeared to have no injurious effect. The experiments carried out on dogs are without any particular interest in connexion with the matter under consideration, they merely showed that relatively large doses produced vomiting, convulsions, stertorous breathing, and death. After the administration of large doses frequently repeated death occurred with peritonitis and hæmorrhages from the gastro-intestinal mucous membrane. I have found that fish will live and thrive in water containing 1 in 40,000 formic aldehyde. Thus gold-fish, tench, and minnows were kept in a small aquarium containing a formic aldehyde solution of this strength. At the end of a fortnight, owing to a mismeasurement by an assistant, the proportion of formic aldehyde was increased to 1 in 20,000 and the result of this was that all the fish were dead within five hours. Another set of gold-fish and carp were kept alive and well for ten weeks in a small aquarium containing a 1 in 40,000 solution of formic aldehyde which was changed daily. And I think that this fact affords a strong indication that such a solution of formic aldehyde does not have any injurious effect upon animal tissues generally.

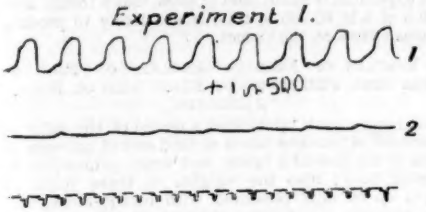
Action of formic aldehyde on the frog's heart.—Mosso and Paoletti tested the action of formic aldehyde on blood-vessels and on the frog's heart. They found that strong solutions had a contractile effect on arteries, a 1 in 250 solution limiting the capacity of the vessels by one-half. Mosso and Paoletti give the following statements as to the action of formic aldehyde on the frog's heart; a few drops of undiluted formalin quickly stopped the pulsation, a 1 in 250 solution caused a distinct slowing, a 1 in 500 solution still caused slowing, but a 1 in 2500 solution did not appear to have any effect whatever. As the effect of formic aldehyde on the frog's heart seemed likely to afford a fair test of its action on living tissues generally the question was studied in some detail. It may be just mentioned here that it was stated by Rideal and myself[7] that, so far as our experiments then went, the application of "a solution of 1 in 1000 did not affect in the slightest degree either the frequency or the force of the contractions." The solution then referred to was not a 1 in 1000 formic aldehyde solution, but contained 1 in 1000 formalin or 1 in 2500 formic aldehyde. In any case the statement, for which I personally must accept the responsibility, was, as expressly said in our paper, made on the strength of only a few observations. Subsequent experiments have shown that it was incorrect, and that the heart's action may be affected by a solution as dilute as 1 in 5000 of formic aldehyde. I have since carried

[5] Journal of Experimental Medicine, 1899, vol. iv., No. 1.

[6] Loc. cit.

[7] Loc. cit.

Experiment 1.



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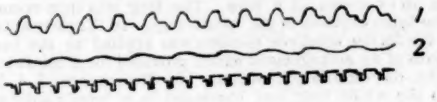

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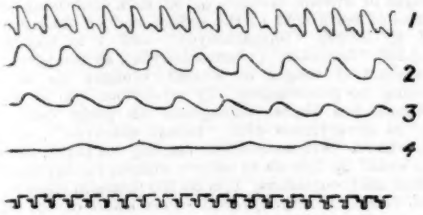

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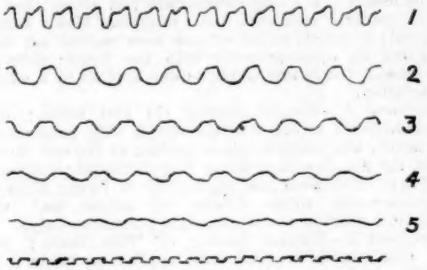

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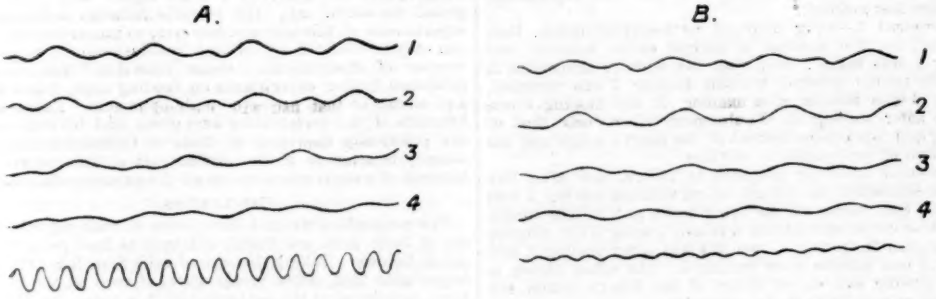
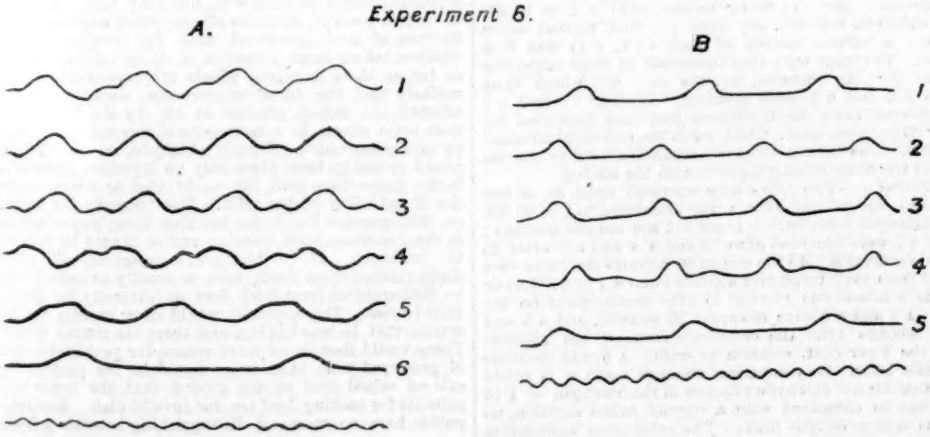


Experiment 6.



out a more exhaustive series of experiments, in which the reagent was applied to the heart for longer periods. In this further series I have had the advantage of the kind assistance of Dr. R. A. Young, Lecturer on Physiology at the Middlesex Hospital, who has also been good enough to go carefully over the tracings, and who agrees fully with the results expressed in what follows. In all the experiments the frog was first killed by pithing, the cord and brain being broken up by means of a wire. The frog was then opened, and the heart exposed in the usual way. In Experiments 1 and 2 the formic aldehyde solution was applied to the heart by means of an arrangement which provided for a continuous dripping during the experiment. In Experiments 3, 4, 5A, and 6A the whole frog was immersed in a formic aldehyde solution; in Experiments 5B and 6B tracings were taken of the heart's action in control frogs similarly immersed in a normal saline solution. In all experiments the lever which recorded the tracings was weighted with a one-gramme weight. In Experiments 1–4 the time tracing was recorded by means of an electric time-marker and in the other experiments by means of a spring chronograph; in either case the vibration periods represent half seconds. When control experiments in normal saline solution were carried out these were going on simultaneously with the formic aldehyde experiments. The formic aldehyde was applied in a normal saline solution.

Experiment 1.—Normal tracing (1) first taken; then formic aldehyde 1 in 500 was allowed to drip continuously on the heart; the ventricle ceased beating at the end of four minutes, the auricles then being over-distended; tracing 2, taken five minutes after the application of formic aldehyde was commenced, shows slowing of action and very marked diminution in power (auricular pulsations only).

Experiment 2.—Normal tracing (1) first taken; then formic aldehyde 1 in 1000 was applied as before; the ventricle ceased beating at about the same period as before, the auricles again quickly becoming over-distended. Tracing 2, taken seven minutes after the commencement, shows the same general effect as tracing 2 of the first experiment, but rather less marked.

Experiment 3.—Frog prepared as described above, then immersed for five minutes in normal saline solution, and tracing 1 was taken; then after five minutes' immersion in 1 in 500 formic aldehyde solution tracing 2 was recorded, tracing 3 one minute after tracing 2, and tracing 4 one minute after tracing 3. The general effect was that of slowing and rapid enfeeblement of the heart's action and the production of irregularity of rhythm.

Experiment 4.—Frog prepared as before, and after five minutes' immersion in normal saline solution tracing 1 was recorded, then immersed for five minutes in 1 in 1000 formic aldehyde solution and tracing 2 taken, tracing 3 five minutes after tracing 2, tracing 4 two minutes after tracing 3, and tracing 5 one minute after tracing 4. The effect shown is one of slowing and enfeeblement of the heart's action, not produced so rapidly as in Experiment 3.

Experiment 5.—In this two frogs were operated on simultaneously, one (A) being treated with a 1 in 10,000 formic aldehyde solution, the other (B) with normal saline solution. A normal tracing of each (A 1, B 1) was first recorded. The frogs were then immersed in their respective solutions for 30 minutes, at the end of which time tracings A 2 and B 2 were recorded. Tracing A 3 and B 3 were recorded after the immersion had been continued for another 20 minutes, and A 4 and B 4 at the end of 60 minutes' immersion. The formic aldehyde solution shows no special action on the heart when compared with the control.

Experiment 6.—Two frogs were operated upon as in last experiment, except that frog A was immersed in 1 in 40,000 formic aldehyde solution. A 1 and B 1 are normal tracings; A 2 and B 2 were recorded after 35 and A 3 and B 3 after 55 minutes' immersion, At the end of 60 minutes the frogs were removed from their respective solutions and a 1 in 100 formic aldehyde solution was allowed to drip continuously on the hearts. A 4 and B 4 were recorded 30 seconds, and A 5 and B 5 90 seconds after the commencement of the application of the 1 per cent. solution to each. A 6 was recorded 60 seconds later. On comparing tracings A and B it would appear that formic aldehyde solution in the strength of 1 in 40,000 has, as compared with a normal saline solution, no injurious action on the heart. The subsequent application of a stronger formic aldehyde solution affected both hearts in much the same way.

The experiment with 1 in 10,000 formic aldehyde solution was repeated, and again no injurious effect could be observed. Similar experiments carried out with 1 in 2000 and 1 in 5000 formic aldehyde solutions showed that with these strengths distinct slowing of the heart's action but no obvious enfeeblement occurred after 20 minutes' immersion. These experiments again tend to show that a formic aldehyde solution of 1 in 40,000 in milk is not likely to produce any injurious effects on the tissues.

THE RESULTS OF FEEDING ANIMALS ON FOOD WHICH HAS BEEN PRESERVED BY BORIC ACID OR FORMIC ALDEHYDE.

Rideal and myself[8] published a record of the daily weight and amount of nitrogen taken as food and of nitrogen in the excreta in the case of a rabbit and some guinea-pigs fed on preserved food; also the weights of three young kittens brought up on milk preserved with formic aldehyde. The small amounts of formic aldehyde present in the food had little or no apparent effect on proteid metabolism, but our observations were not sufficiently numerous to enable us to lay any stress on them one way or another. Dr. H. E. Annett[9] has recently published tables recording the increase of weight in kittens brought up on milk containing 40 and 80 grains of boric acid to the gallon and on milk containing 1 in 50,000 "formaldehyde" and 1 in 25,000 and 1 in 12,500 "formalin," (? formaldehyde), as compared with the increase of weight in kittens brought up on milk containing no preservative. By an obvious slip of his pen Dr. Annett has almost throughout his paper used "formalin" as synonymous with "formic aldehyde"; at least, that is what I have assumed in reading his paper, as otherwise it would be difficult to believe without further confirmation that milk containing 1 in 50,000 formalin (that is, 1 in 150,000 formic aldehyde) could cause some of the effects observed. Dr. Annett's work on this aspect of the question is the fullest yet published, and due weight must be attached to his results which distinctly suggest injurious effects from the preservative used in milk in the above proportions, which latter are generally a little higher than those suggested for actual use. The possible fallacies incidental to experiments of this sort are, however, so numerous that they can only be obviated by forming conclusions on a very large number of observations. Oscar Liebreich[10] has recently published further experiments on feeding dogs, guinea-pigs, and rabbits on food preserved with boric acid. Rather large amounts of the preservative were given, and his conclusions are practically the same as those of Chittenden and Gies already referred to in the earlier part of this paper. An increase of weight was noted in all the experimental animals.

CONCLUSIONS.

The conclusions which I have come to with regard to the use of boric acid and formic aldehyde as food preservatives are as follows. Taking the case of milk first, it is extremely improbable that either preservative, if used in the proportions mentioned at the beginning of this paper, would cause any injurious effect whatever to the average adult taking the ordinary amount of milk with his daily food. But because of certain possible injurious effects which might be produced the use of such preserved milk for invalids and young children taking large quantities is to be condemned. And, so far as these injurious effects are concerned, it appears unlikely that the digestive processes would be materially affected—or, indeed, affected at all—by the boric acid, but that toxic effects in a more general way might be produced by this preservative. Formic aldehyde, on the other hand, would probably have absolutely no injurious general effect in the proportions used, but would tend to lessen somewhat the digestibility of the milk. The necessity for legislation on this question lies in the fact that these preservatives are, in the quantities used, tasteless and so cannot be detected by the consumer. If, for instance, a preserved milk could be distinguished from fresh milk as readily as salted beef can be distinguished from fresh beef no necessity for legislation would arise. The consumer would know exactly the kind of article that he was buying, and there the matter would end. There would then be no more reason for prohibiting the sale of preserved milk than there would be for prohibiting the sale of salted beef on the ground that the latter was not suitable for making beef-tea for invalid diet. But since the public have no means of distinguishing between a fresh and

[8] Loc. cit.
[9] THE LANCET, Nov. 11th, 1899, p. 1212.
[10] Effects of Borax and Boracic Acid on the Human System, 1899.

a preserved milk special legislation does seem absolutely necessary. And such legislation to satisfy the requirements of the public health should provide that no preservative whatever the use of which is not sanctioned by the Local Government Board or the Board of Agriculture should be used for milk; that the proportion of such preservative should not exceed a certain maximum amount to be fixed officially; that the nature of the milk should be declared by the vendor, and that it should be sold only as "preserved milk." And, finally, the penalties for infringement of the law should be sufficiently heavy to render the sale of "preserved milk" as fresh milk unprofitable.

With regard to other articles of food special cases must be dealt with on their own merits, but I do not think that there is any other article of food in which the use of a preservative is so important as it is in the case of milk. It is, for instance, difficult to find any good reason for the presence of salicylic acid or other special preservative in such articles of food as jam, cheese, and pickles, whilst the use of certain preservatives as substitutes for alcohol is a matter of fraud pure and simple. So also the use of a tasteless preservative in butter cannot be regarded as other than fraudulent unless the fact is declared; by using such a preservative the vendor is enabled to sell as fresh butter what under former conditions would have been sold at a lower price as salt butter. The use of boric acid, again, for salting bacon and ham may or may not cause injury to the consumer, but in any case the latter should have the opportunity of exercising his own judgment on the matter as to whether he will eat that class of preserved food. And, in short, it appears to me that if the regulations suggested above for milk were applied to all other articles of food of a perishable nature the requirements of the public health would be safe-guarded as far as possible, and at the same time the legitimate use of preservatives would not be interfered with.

Sutton, Surrey.

THREE CASES OF PELVIC TROUBLE CAUSED BY BICYCLING.

BY SKENE KEITH, M.B., F.R.C.S. EDIN.

AN experience of only three cases where bicycling has necessitated treatment of the pelvic organs is so small that if others have met with similar cases in anything approaching the same proportion it may be safely affirmed that the amusement is a safe one for all fairly healthy women in so far as that region of the body is concerned. The physician, doubtless, will meet with a greater number of bad results when he examines the chest. It is reasonable to expect that when a woman, or for the matter of that a man, of 30 years, 40 years, or 50 years of age takes up for the first time in life any form of athletics and competes with those who have been accustomed to such exercises, that in a certain number the heart will not be able to bear the strain. The question naturally arises, What is moderation in bicycling? This depends on many things; in the case of a woman on the person herself, on the roads, whether they are hilly or level, smooth, rough, or heavy, on the machine, and on various other conditions. No average distance, therefore, can be fixed. 10 miles may be too much for some and 40 miles not too much for others. Two of the three cases presented special points of interest. The predominant symptom in both was melancholia, apparently due to some derangement in the pelvic circulation. In the one case there was a retroversion of the uterus and in the other the most prominent sign was an anteversion of the uterus.

CASE 1.—The injury in this case was due to an accident and might have occurred had the patient been driving in any other way, so that it is hardly fair to credit bicycling with the result. In the summer-time the patient, a woman, aged 22 years and unmarried, was rapidly descending a hill when a dog ran in front of the machine and she fell, being much shaken, but as far as she knew she received no special injury. For the next two weeks, until the menstrual period came on, she felt fairly well but a little dull. The flow of the menses was not natural, the quantity being much less than usual, but there was no pain. The next month there was no flow and the patient felt depressed and chilly. Her medical man was consulted and prescribed some medicine which brought on a slight hæmorrhagic discharge from the womb, but as the depression increased he took her to one of the best-known gynæcologists in the north. This was three months after the accident. An internal examination was made and the uterus was found to be very slightly retroverted. A month afterwards I saw her, when she had the typical appearance of a patient suffering from melancholia. She complained of a great feeling of cold but of no pain. The hands and feet were of icy coldness—even sitting close "into the fire" she said she felt cold—and there was no perspiration. Her friends told me that she would sit all day with a book and this often upside down. On examination I found a complete retroversion, so that in a month the uterus had gradually turned over. Of this there can be no doubt. As confirmatory of the truth of this the melancholia had steadily increased and the feeling of cold was more intensified. The uterus could be replaced with the sound, but only by using a certain amount of force. When it was held in position by the instrument a decided amount of general swelling could be felt in the posterior fornix. The ovaries were not made out. As soon as the sound was removed the uterus retroverted slightly. Several pessaries were tried which failed to keep the uterus in position or to relieve the symptoms, and as the difficulty seemed to lie in the thickening behind the uterus hot-water injections were ordered. While these were being given an almost normal period came on, without, however, lessening the melancholia. At the end of nearly three weeks an examination was again made. The uterus was found to be looser and could be turned up more easily, but as there was still some backward dragging a ring pessary only was introduced. This kept the uterus well up, though with a very slight backward displacement. The organ was now probably in a better position than it had been when the first examination was made. Recovery was almost instantaneous. By night the patient felt warm, she perspired freely while in bed, and by the next morning she was perfectly well. With the exception of one severe attack of pelvic pain the patient has had no return of her trouble. She is now married and has been delivered of her first child.

I do not think that one could have a more perfect example of the well-known fact that it is not the displacement which is of importance, but that it is the result of the displacement which must be cured—the natural effort at cure being directed to the original cause. When first examined there was a slight retroversion and when she was cured there was still a slight retroversion, but in the meantime the result of the misplacement had been removed. The hot water alone did not make the patient well, but it put her in the position to be made well by the pessary.

CASE 2.—I first saw this case in October, 1894. The patient was 33 years of age; she had been married five years and she had had two children, the younger being 16 months old. She had had a great deal of worry and the birth of the second child brought her troubles to a head. For a time she was quite melancholic. A number of medical men had been consulted and the Weir-Mitchell treatment had been tried but had to be discontinued after a very short time. Eventually she went abroad. When I saw her she was nearly well and my note of the state of the pelvis is, "Uterus heavy and lying forwards, with slight cervical tear, but giving rise to no trouble." I did not hear of her again till October, 1897. In the interval she had been quite well until the May preceding, when she felt something "seem to go wrong" in her inside while she was learning to bicycle. She consulted her medical adviser who put in a Hodge pessary. Gradually but steadily the old feeling of depression came on and by August she began to wish to leave her home, her husband, and her children, and go away somewhere by herself. As her own medical man was absent she consulted a stranger, who said that the depression was due to gout and that she must go to Homburg to be cured. When she arrived there the practitioner whom she consulted said that she was not a suitable case, but gave her some treatment. After being in the country for two months and gradually getting worse she came to see me at the very end of October. Such was the history of the case except that she had been for some time losing more at the periods, which appeared every three weeks. The state of the uterus had changed—it was about half again as large as it had been, it was very much harder, and it was more anteverted. She was still wearing the pessary which had been inserted in May. The depression

was always great, but it was at its depth during the periods, and she had frequent attacks of sleeplessness. To my mind the mental condition was caused by the hardness and anteversion of the uterus. The history indicated that something was felt internally in May, that this was followed by the gradually increasing melancholia, and that a distinct change had occurred in the local condition. Taking up this position, the only natural form of treatment seemed to me to be one which would soften the uterus and reduce its bulk. This I advised should be done by electricity and this treatment was carried out. Marked improvement did not come quickly, but when it did it coincided with the softening and gradual elevation of the uterus. 25 applications in all were made, and it was only when the treatment was nearly finished that the patient began to have any desire to go home. Before she left the menstrual interval had gone back to four weeks instead of three weeks. Within two or three months of going home she was completely restored to health and spirits and some months later she became pregnant. I did not remove the original Hodge pessary, which raised the pelvic contents well, as the uterus became lighter.

CASE 3.—This case need not be referred to at length as it presents no special features of interest. There was a retroversion with a prolapsed ovary and the symptoms began very definitely at the time when the patient was learning to bicycle.

Charles-street, Berkeley-square, W.

CASE OF TRAUMATIC ANEURYSM OF THE CAROTID ARTERY CAUSED BY A SEWING-NEEDLE.

BY EDWARD H. DOUTY, M.A., M.D. CANTAB., &c.,
LATE ASSISTANT SURGEON TO ADDENBROOKE'S HOSPITAL, CAMBRIDGE

So far as I know, the following case is a unique instance of its kind, and it would therefore appear desirable that it should be placed on record. I am indebted to Mr. J. B. Byles, senior house surgeon to Addenbrooke's Hospital, for the notes on the condition of the patient on admission to hospital, together with the history of the case up to the operation.

The patient, a man, 62 years of age, was thin but healthy in appearance. There was no history of syphilis or of other previous illness of any importance. His occupation was that of a millwright. The symptoms of his present trouble commenced on August 10th, 1898. On that day he complained of sore-throat, with difficulty of, and pain on, swallowing, and his medical attendant treated him with gargles, &c., and kept him in bed. On the 29th he noticed a lump on the right side of his neck and on the following day he began to spit blood. This latter symptom continued until his admission to the hospital on the 31st. The blood was bright-red in colour and frothy in character. It was generally expectorated in small quantities, but it was stated that twice before admission the patient was "nearly choked" by a sudden rush of a pint or more than a pint of blood.

On examination a pulsating swelling was found on the right side of the neck reaching from the angle of the jaw down to the clavicle. A thrill and a loud bruit synchronous with the systole of the heart were present over the swelling. The area of cardiac dulness was normal. On auscultation nothing abnormal could be detected in the heart sounds, save that the aortic second sound was accentuated. There was no appreciable difference between the radial pulses on the two sides, but the right temporal pulse was markedly smaller than the left and also delayed in time. The right pupil was contracted. Digital examination of the pharynx revealed an ulcer behind and below the epiglottis on the right side. It was from this point that the blood appeared to come.

On August 31st, a few hours after admission, I operated on the patient. The swelling extended so far down that I thought it necessary to tie the innominate artery. I explored the innominate, but finding that the proximal part of the carotid artery was healthy I tied this latter artery with two silk ligatures about a quarter of an inch from the bifurcation. The pulsation of the tumour ceased absolutely. There was much restlessness after the operation, but this was controlled by hypodermic injections of one-sixth of a grain of morphia. On two occasions during the following day there was marked left unilateral sweating of the face and head; each time this symptom lasted for about an hour. A small quantity of blood was expectorated in the afternoon. In the evening the patient was again very restless and the pulse became weak. He died suddenly at 10 P.M. For the following careful notes of the post-mortem examination I am indebted to the late Professor Kanthack.

On opening up the incision the artery was found to be securely tied by double ligatures. There was no aneurysmal dilatation below the ligatures. The first part of the aortic arch appeared to be dilated, but when opened up afterwards there was nothing abnormal to be seen and its circumference was normal in extent. Tracing the common carotid up it lost itself in a mass which was copiously suffused with blood, so that it was impossible to dissect out the various structures. The carotid artery, however, did not open into anything like an aneurysmal sac. While dissecting the parts out the mass broke down and much soft coagulum appeared. The

A, Needle. B, Opening in the right carotid artery. C, The point of ligature. D, Orifice of the right subclavian artery. E, Aorta. F, The left carotid artery.

tumour-like mass was formed below the angle of the mandible, on a level with the thyroid cartilage. On dissecting carefully it was found (1) that the spine was not affected—i.e., not eroded, &c.—and (2) that the bleeding had extended behind the pharynx and œsophagus, forming a small tumour-like mass on the left on a level with the cricoid cartilage. 3. On opening the common carotid and tracing it up there was no aneurysmal dilatation whatever, but on a level with the cricoid cartilage there was an eroded opening through which blood had passed into the parts

around so as to produce the hæmorrhagic tumour-like mass. 4. Just outside—i.e., to the right of the carotid artery—on a level with the eroded opening, a sewing-needle was found point downwards and blackened. 5. On opening the pharynx and œsophagus on a level with the upper border of the cricoid cartilage an ulcer was found which opened into a cavity as large as a hazel-nut. This cavity was continuous with the hæmorrhagic mass on the left and on the right. Hence we may assume that the needle had produced the ulcer, that it had then passed through the œsophageal and pharyngeal wall and pierced the carotid artery, producing a traumatic aneurysm. There was neither atheroma nor granular kidney. There was much œdema of the velum palati and posterior wall of the pharynx and also of the larynx. There was, however, no evidence of paralysis of the vocal cords although the right cord was œdematous. The lungs, heart, and brain were normal.

It was elicited that the man had been a beer-drinker and that he drank large quantities. A week before his symptoms began he had when with friends drunk a very large quantity and more than was good for him. It is probable that while semi-intoxicated he swallowed the needle which became impacted in the pharynx, working its way subsequently into the carotid artery.

Davos-Platz.

THE SURGICAL TREATMENT OF GONORRHŒAL ARTHRITIS.

BY JOHN O'CONOR, M.D. DUB.,
SENIOR MEDICAL OFFICER, BRITISH HOSPITAL, BUENOS AYRES.

SINCE March 24th, 1897, I have practised arthrotomy with irrigation and drainage in all cases of this malady which I have met with, and so far my results tend to confirm the opinions stated in my first paper on this subject. I cannot too strongly recommend surgeons to tackle this disease early in order to save the joint structures from prolonged immersion in a particularly destructive exudation. I do not wish to waste space by repeating my reasons for adopting this treatment, but if anyone is sufficiently interested I should like to refer him to the number of the *Glasgow Medical Journal* for December, 1897, or the *Annals of Surgery*, February, 1898. In all the following cases particular attention was paid to free drainage and in not a single instance did sepsis supervene and no relapses occurred. "Discharged cured" implies with a joint normal in contour and function.

CASE 1.—The patient was admitted to hospital on March 20th, 1897, suffering from acute gonorrhœa and pain, flexion, and effusion in the left knee. On March 24th arthrotomy was performed and four ounces of turbid serum and lymph-flakes were evacuated. The wound was drained for three days. On April 13th the patient was discharged cured.

CASE 2.—The patient was admitted to hospital on March 19th, 1897, suffering from chronic gonorrhœa with arthritis of the right knee. After a prolonged expectant and useless treatment arthrotomy was performed on June 13th. One ounce of turbid serum and a piece of thickened synovial membrane were removed. The patient was discharged cured on July 12th.

CASE 3.—The patient entered hospital on July 21st, 1897, suffering from gonorrhœa and arthritis of the right knee. On July 26th arthrotomy was performed. On August 14th the patient was discharged cured. Five ounces of turbid, flaky serum were removed at the operation.

CASE 4.—The patient was admitted to hospital on Sept. 13th, 1897, suffering from gonorrhœa and arthritis of the right knee. On Sept. 25th arthrotomy was performed and four ounces of serum were evacuated. On Oct. 4th he was discharged with good movement. A month later he came for inspection and the joint was found to be normal.

CASE 5.—The patient was admitted to hospital on Nov. 4th, 1897, suffering from gonorrhœa and arthritis of both knee-joints. On Nov. 6th double arthrotomy was performed and turbid and flaky serum was removed from each. The drains were left out on the third day. The patient was discharged cured on Dec. 3rd.

CASE 6.—A patient was admitted to hospital on Dec. 27th, 1898, suffering from gleet and arthritis of the right knee. On Jan. 21st, 1899, arthrotomy was performed. On March 6th the patient was discharged cured. Six ounces of serum were evacuated at the operation.

CASE 7.—A patient was admitted to hospital on Dec. 29th, suffering from gonorrhœa and arthritis of the left knee. On Jan. 24th arthrotomy was performed. Three ounces of serum were removed. On March 6th the patient was discharged cured.

CASE 8.—A patient was admitted to hospital on Jan. 2nd, 1899, suffering from acute gonorrhœa and arthritis of the left knee. On the 3rd arthrotomy was performed. On the 17th the wound healed; the contour and function were normal. On the 23rd the right wrist became affected and on Feb. 3rd arthrotomy was performed and about a teaspoonful of turbid serum was removed; free incisions were made into the swelling around the joint. On March 1st the patient was discharged cured.

CASE 9.—The patient was admitted to hospital on Feb. 14th, 1899, suffering from gonorrhœa and arthritis of the left ankle. On Feb. 21st arthrotomy was performed and incisions were made; owing to the anæmic condition the wounds healed very slowly. On May 8th the patient was discharged cured.

CASE 10.—The patient was admitted to hospital on July 19th, 1899, suffering from gonorrhœa and arthritis (with cellulitis) of the left wrist. On July 25th arthrotomy, &c., were performed, about half an ounce of turbid serum being removed from the joint and free incisions were made in the congested area. On August 1st swelling was markedly diminished and active movement was daily increasing. The patient is still under treatment.

Buenos Ayres.

SUBCUTANEOUS EMPHYSEMA IN A CASE OF BRONCHITIS.

BY JOHN GORDON, M.D. ABERD.,
ASSISTANT PHYSICIAN TO THE ABERDEEN ROYAL INFIRMARY.

THE patient, a healthy-looking, well-nourished boy, aged four and a half years, had been suffering from a slight attack of pulmonary catarrh for two days. The child had not been confined to the house but had been allowed to move out of doors. On the day preceding that on which I saw him the mother took the child to a distance and returned somewhat late in the evening. The pulmonary catarrh was aggravated and the frequency of the coughing increased. During the morning of the day on which the child was first visited by me he had become restless and feverish and the cough was frequent. About noon on Dec. 3rd he had several sharp and severe paroxysms of coughing. The grandmother stated that these attacks were hard, sharp, and frequent, but there was nothing of a specially violent character in their nature. At 1 P.M. a swelling was observed on the right side of the neck which speedily extended along the right cheek and the left side of the neck was next involved.

When the patient came under my observation at 4 P.M. there was marked swelling along the whole of the neck, sides, and front. Both cheeks were swollen. The swelling extended downwards on the right side of the thoracic wall as far as the lowest rib, along the axillary region, and also to the lowest rib on the posterior aspect of the wall of the thorax. The front of the left thoracic wall was involved as far as the nipple, but neither the axillary nor the posterior regions were implicated to any extent. The swollen parts were not red. They felt soft and yielding to the touch, and one had the sensation that the swollen parts were packed with displaceable air. The feeling, indeed, on handling the neck was very akin to that conveyed when a markedly emphysematous lung is grasped. Crepitation was secured when the tissues were pressed against the ribs, thus shifting the air bubbles in the subcutaneous tissue. The tension was not great in any of the swollen parts. The patient evinced great distress and was tossing himself about. His face was flushed, the nostrils were dilated, and so were the pupils. The respirations were 72 per minute. The pulse was 160 and the temperature was 103° F. Examination of the mouth and throat gave negative results. There was no difficulty in swallowing. Stethoscopic examination gave fine crepitation—from the air in the subcutaneous tissue—and in the lungs, especially in the posterior aspects, there

were numerous small râles, dry and moist. A few of the same character were also obtained in the lateral and anterior regions. The patient was ordered two grains of antifebrin every four hours and light linseed-meal jacket-poultices. At 10 P.M. the patient was again visited. The swelling had increased in all the regions already mentioned, but the right anterior regions showed the greatest increase. The swelling in the neck was very considerable. Râles of the same nature as at the last examination were heard. The respirations were 52 per minute, the pulse was 120, and the temperature was 99°. The patient looked greatly relieved. His skin was very moist and the diminished frequency of the respirations was specially evident. Examination of the mouth and throat was negative. The antifebrin was ordered to be continued as well as the poultices. On Dec. 4th the swelling was much the same as on the former day. Certainly it was not increased. The respirations were 42 per minute, the pulse was 110, and the temperature was 99°. Râles were still present, but the moist ones were more numerous than the dry. On the 5th the swelling was less in the cheeks, neck, and anterior regions of the thoracic wall; the tension also was less all over. The respirations were 40 per minute, the pulse was 110, and the temperature was normal. The patient was hoarse when he spoke. There was nothing abnormal to be seen in the throat, nor was there any evidence of distress on breathing. The antifebrin was discontinued. On the 6th the swelling on the face, neck, and anterior regions of the chest was distinctly less, although the posterior parts of the thoracic wall did not show so marked a diminution. The respirations were 30 per minute, the pulse was 100, the temperature was normal, and the râles had disappeared. On the 7th the swelling was less all over the parts affected. The respirations were 26 per minute, the pulse was 86, and the temperature was normal. From this date the swelling gradually diminished till it had quite disappeared on the tenth day from its onset. The part which longest gave evidence of the swelling was the posterior region of the right thoracic wall.

The treatment consisted in two-grain doses of antifebrin every four hours till the temperature became normal and poultices of linseed-meal for the first three days. The chest was then rubbed morning and evening with hot animal oil (neatsfoot) and enveloped in cotton-wool.

As stated by Dr. J. R. Gibson in THE LANCET of Dec. 8th, 1894, p. 1345, these cases are sufficiently rare to be worthy of record. In this case the efforts of coughing were so comparatively slight as to suggest the likelihood of a congenital weakness in some of the alveoli of the lungs. The father of the patient died from phthisis. The probability is that the ruptured air vesicles allowed of the escape of their contents into the cellular tissue between the lobules of the lung, giving rise to inter-lobular emphysema. Thence the air found its way to the root of the right lung and into the anterior mediastinum, and thence guided by the cervical fasciæ into the neck and face regions. The duration of time required to absorb the air was in this case ten days. The distress of the patient was confined to the first three days of the illness.

Aberdeen.

WESTERN COUNTIES VETERINARY ASSOCIATION.—At the meeting of the Western Counties Veterinary Association held at Exeter recently the President (Mr. W. Penhale) referred to the inequality in the treatment by the War Office of veterinary surgeons as compared with medical officers in regard to the advancement of their rank in yeomanry regiments and added that the veterinary surgeon had never stood out with such prominence and importance as he did to-day in matters relating to public health.

DIPHTHERIA IN SOUTH WALES.—At a recent meeting of the Penarth Health Committee Mr. R. F. Nell, the medical officer of health, reported that 57 cases of diphtheria had been notified during November. The committee decided to close all public elementary schools and Sunday schools until January next, and to request the Local Government Board to hold an inquiry and communicate with the district and county medical officers of health upon the matter.—At the meeting of the Pontypridd District Council held on Nov. 28th Mr. H. Davies, the medical officer of health, reported that 31 cases of diphtheria had been notified during the past two weeks.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A NOTE ON THE EXCISION OF JOINTS IN RHEUMATOID ARTHRITIS.

BY F. A. SOUTHAM, M.B. OXON., F.R.C.S. ENG.,
SURGEON TO THE MANCHESTER ROYAL INFIRMARY; LECTURER ON OPERATIVE SURGERY, OWENS COLLEGE.

I HAVE read with much interest Dr. F. W. Collinson's case of excision of both elbow-joints for rheumatoid arthritis,[1] Mr. Howard Marsh's two cases of excision of the knee-joint for osteo-arthritis, and the remarks of Dr. G. A. Bannatyne and Dr. R. D. Parker on the question of operative interference in rheumatoid arthritis,[2] having myself some years ago performed six excisions of joints in three patients who were the subjects of this affection. In four instances excision of the knee was performed in order to correct a flexed and ankylosed position in which the limb had become quite useless, and in two instances the elbow was excised with the object of substituting a moveable for a perfectly stiff joint.

On looking up the literature of the subject at the time the operations were performed, I remember, like Dr. Collinson, "being struck by the silence of authorities upon the subject of excision," and I therefore briefly record the following cases in the hope that an account of the results obtained may prove of some assistance to others desiring information upon this method of treatment, when the question of its employment for the relief of rheumatoid arthritis arises. It is interesting to note that all three patients were females, about thirty years of age, and that in each instance the wounds very readily healed. As regards the condition of the joints, the ends of the bones were more or less sclerosed and eburnated, and there was a formation of osteophytes around the articular surfaces, varying in extent in the different cases. Since the date of the last operation (December, 1894) I have not met with any other cases where excision has been indicated.

CASE 1.—The patient was a female, aged 29 years, in whom almost every joint was more or less ankylosed, the affection having commenced in the temporo-maxillary articulations about eight years previously. The knee-joints could not be extended beyond a right angle, and she had been confined to bed for seven years, being incapacitated from walking on account of the flexed condition of both legs. The right elbow was completely ankylosed at an angle of about 100 degrees. In 1893 both the knee-joints and the the right elbow-joint were excised with satisfactory results. In the lower extremities bony union with the limbs in the extended position was obtained, so that the patient from being completely bedridden was soon able to walk several miles and she continues to do so. Good movement was obtained in the elbow-joint and it is still present.

CASE 2.—In this patient, a female, aged 30 years, both the knee-joints were ankylosed and in exactly the same condition as were those of the last patient, as well as several of the other joints. The affection had commenced in the knees about seven years previously, and for about four years the patient had been unable to walk. She lived in the same neighbourhood as the subject of Case 1 and came to the hospital in consequence of having heard of the satisfactory results of the operation upon the knee-joints in that case. In 1894, both knee-joints were excised with a similar result, the power of locomotion being restored to the patient.

CASE 3.—The patient was a female, aged 30 years, in whom almost all the joints were affected, but only to a slight extent, with the exception of the left elbow, which was completely ankylosed at an obtuse angle. In 1894 the left elbow was excised and a moveable joint was obtained. Good movement was present when the patient, who has been lost sight of, was last seen some months after the operation.

Manchester.

[1] THE LANCET, Nov. 4th, 1899, p. 1230.
[2] THE LANCET, Nov. 18th, 1899, pp. 1400 and 1401.

A CASE OF EDGEWISE DISLOCATION OF THE PATELLA.

BY J. G. MACASKIE, L.R.C.P. & S. EDIN., D.P.H.

ON Oct. 31st I was called to see a young man who was suffering from the above dislocation which I believe is rarely met with. The characteristic shape of the patella prevented any difficulty in diagnosis—its outer edge rested upon the femur and the bone was very firmly fixed in its new position. I had the patient seated in front of me and raised the affected limb, laying the foot upon my shoulder, and flexing the femur as much as possible at the hip; a little manipulation with the palms of my hands quickly reduced the bone with a snap.

Bamburgh, Northumberland.

EXTRAORDINARY DEVELOPMENT OF THE GENITAL ORGANS IN A MALE FŒTUS.

BY RICHARD G. WORGER, M.R.C.S.ENG., L.R.C.P.LOND., L.S.A.

I WAS recently called to attend a primipara, aged 25 years, who had a perfectly normal labour with the exception that I had to use the short forceps. The parents are well developed, with no abnormality whatsoever. On delivery of the child's body the penis was seen to be abnormally large and semi-erected, reaching to the umbilicus; in fact the size of the penis corresponded to that of a lad about 16 years of age. The penis on examination was found to be quite four inches long, phimosis was well marked, the meatus was pinholed, and situated on the dorsal surface of the free extremity around the meatus was a pigmented warty excresence of the colour of an ordinary nævus. The scrotum was also abnormally developed and was hanging half way down the child's thighs, with rugæ strongly marked. On the left side the testicle had descended, with a marked hernia, while on the right side the testicle had not descended and the little finger could be pushed through the inguinal canal. There was no other abnormality and the child was otherwise well developed. The child lived for about an hour, and after death the penis was felt to be quite cartilaginous and it measured three inches in length. I regret that I was unable to perform a necropsy or to obtain a photograph.

Radstock, Bath.

A NOTE ON MONDORF LES BAINS.

BY H. T. GRIFFITHS, M.D. CANTAB.

SITUATED on the south side of the Duchy of Luxemburg, near the frontier of Lorraine, and within a few miles of the vine-covered banks of the Moselle, this little-known bath has much to recommend it. The waters are cold and largely impregnated with chloride of soda, the following being the latest analysis in grains to the gallon:—

	Grains.		Grains.
Chloride of soda	639·34	Sulphate of lime...	104·16
,, ,, potash	14·13	,, ,, strontium ...	7·44
,, ,, lime...	240·31	Carbonate of lime	7·35
,, ,, magnesia ...	29·76	,, ,, magnesia ...	0·15
,, ,, lithia	0·59	,, ,, iron	0·75
Bromide of magnesia ...	11·16		

with some carbonic acid gas and free nitrogen; but presumably more iron is in solution, as the baths discolour greatly on standing.

Fifteen ounces seem to be the regulation quantity to be taken in the morning, and five ounces later in the day. The water has a pleasant but decidedly chalybeate taste, and has a fairly purgative action taken in these doses and it much resembles the waters of Kreuznach and Wiesbaden. The baths are well arranged though small, and there are two good *piscines* or swimming baths, which are kept at a temperature of about 65° F. The chief cures are claimed for cases of gout and rheumatism, but the waters are hardly so suitable for cases of gout as for those of rheumatism and they seem best adapted for nervous disorders with anæmia. For the latter class the place itself is eminently suitable, the climate is pleasant and the air is soft; moreover, electric baths and the various douches are in application. Living is cheap and there are many hotels quite close to the small casino in which a tolerable band plays. The best hotel is the Grand Chef. There is also a small lake and the casino grounds are well laid out, while excursions can be made to many places of interest close by—the banks of the Moselle being beautifully covered and the roads good for walking and bicycling. Nennig, which is about eight miles off, possesses the best Roman pavement out of Italy. In conclusion, Mondorf les Bains offers many inducements for a visit, being within easy reach of express trains, prices being moderate, especially the bathing charges, and the place being on the direct road for the best form of *nachkur*—the higher grounds of Switzerland.

Kensington-square, W.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

A CASE OF TUBERCULOUS BLADDER GREATLY IMPROVED BY HYDRAULIC DISTENSION.

(Under the care of Mr. W. H. BATTLE.)

THE treatment of contracted bladder by hydraulic pressure was first employed by Dr. H. Young;[1] he reported eight cases in all of which much benefit had resulted. In the case recorded below the proof of the tuberculous nature of the disease was most complete: there was a family history of phthisis and the patient himself had had caries of the spine and a psoas abscess. He had had also disease of the epididymis of both testes and the vesiculæ seminales were enlarged, and, lastly, the urine contained tubercle bacilli. But the great suffering of the patient arose in no small degree from the very contracted state of the bladder which necessitated frequent micturition. This symptom was very satisfactorily improved by the hydraulic distension. How far the tuberculosis was affected it is difficult to say, but as the pain all disappeared we are probably justified in thinking that it had diminished in extent and severity. For the notes of the case we are indebted to Mr. Turner, dresser.

A man, aged 22 years, was admitted into the Albert Ward of St. Thomas's Hospital on June 21st, 1899, complaining of painful incontinence of urine. He had a family history of tuberculosis, his father and his father's brother having died from phthisis. He had previously been in the hospital in 1894 for caries of the spine in the dorso-lumbar region with a psoas abscess, which had then been successfully treated. He stated that he had suffered from the symptoms connected with his bladder for three and a half years; he had been unable to hold his urine for any length of time and had felt severe pain in the lower part of the abdomen and at the end of the penis; this pain was relieved by micturition. He had occasionally passed blood; the last occasion was a week before admission, but the urine had usually been clear and in good quantity. He had had a swelling in the left testicle for five years and in the right for two years; in the left testis there had been at one time an abscess which had burst.

On admission to hospital the patient was suffering a great deal from painful incontinence; he was compelled to pass urine about every hour during the day and about six times during the night. The specific gravity of the urine was 1018; it contained no blood, but a few pus corpuscles were seen under the microscope and tubercle bacilli were found. There was a tuberculous epididymitis of both testicles with thickening of the cord, especially on the right side. On examination per rectum the left vesicula seminalis was felt

[1] Johns Hopkins Hospital Bulletins, May, 1898.

to be enlarged and the prostate was tender to the touch. The curvature of the spine was very marked and there were scars remaining from the operation on the psoas abscess, but the disease here seemed to be quiescent. There was no rise of temperature. The patient was kept in bed and a suppository, containing a quarter of a grain of morphia, was given every night, or rather in the early morning, for the relief of the pain and to enable him to obtain sleep. No improvement followed, and as it was considered from the duration and severity of the symptoms that the bladder had become much contracted and that it was unlikely that ordinary methods of treatment would be available in his case Mr. Battle determined to try the effect of hydraulic distension of the bladder. The patient was taken to the theatre and anæsthetised and a catheter with a long rubber tube attached was passed into the bladder. About four ounces of water were introduced into the bladder by means of the funnel and tube, but when an attempt was made to inject a greater quantity the patient became rigid and his respiration was very stertorous. The column of water was about four feet in height. After this similar treatment was carried out daily, but no anæsthetic was employed and boric lotion was passed into the bladder until no more could be tolerated. On July 19th it was noticed that the patient could hold his urine for two or three hours with ease, whilst before the treatment he could never retain it for more than one hour in the day time, and frequently only for ten minutes. At the date mentioned between five and six ounces could be passed into the bladder without causing pain. The patient left the hospital on July 29th; the bladder would then retain seven ounces of fluid; he passed urine only twice in the night and he looked upon himself as cured. His medical attendant, Mr. T. E. Stuart of Harwich, writing on Sept. 12th, stated that the man was much improved; after his return home boric acid solution was passed into his bladder every day for three weeks; then every other day, then every third day, and finally every fourth day. At night he found it necessary to get out of bed only twice, instead of seven or eight times before he went to London. He seemed to be greatly improved in health and passed urine only about four times during the day and had held it for five and a half hours at a stretch.

Remarks by Mr. BATTLE.—Cases of tuberculosis of the bladder are among the most painful of all affections of this organ; and it appears to me to be advisable to record an instance of the employment of a method of treatment which has not received any extensive trial in this country at all events in this disease and which appears to be capable in some cases of producing very great improvement; the pain was markedly diminished and the frequency of micturition was greatly reduced. The chief other methods of treatment of tuberculous ulceration of the bladder are: (1) the injection of various substances, especially iodoform emulsion, into the bladder; and (2) a suprapubic cystotomy for the purpose of scraping the tuberculous deposits. Of these methods the former is rarely of much value and the latter is certainly a more serious operation than hydraulic distension, so that this form of treatment of a very serious disease is deserving of a more extended trial.

DERBYSHIRE ROYAL INFIRMARY.

A CASE OF ICTERUS GRAVIS.

(Under the care of DR. W. BENTHALL.)

IF an attempt be made to classify cases of jaundice several are found which do not fall readily into any of the ordinary classes, and those which were described in 1886 by Weil are, perhaps, the most striking of them. The following case of fatal jaundice differs from Weil's disease chiefly in the fact that there was no enlargement of the liver and spleen; but it is by no means certain that these latter signs are necessarily present in Weil's disease, and therefore if this is not an example of that disease it is closely allied to it. The bacteriological observations are of great interest, especially in connexion with the fact that evidence, according to Jaeger, is not wanting that Weil's disease is associated with bacterial infection. The jaundice in this case was apparently of the obstructive variety. For the notes of the case we are indebted to Dr. H. M. Tickell, house physician.

A man, aged 29 years, a labourer in a skin-curing yard, was taken ill on Nov. 10th, 1898. He felt very cold and complained of weakness of his legs. On the 13th he vomited after taking some medicine and the vomiting recurred frequently during the next 24 hours. The bowels from this time acted freely several times a day and continued to do so to the end. On the following morning he had a fit whilst lying on his couch at home; his face and fingers were noticed to twitch for a few minutes but after this he lay perfectly still for about 20 minutes. After the fit he complained of pains in his legs. It was stated that his previous health had been good, but for the last three weeks he had been drinking heavily. Jaundice was first noticed on Nov. 16th.

On the morning of Nov. 18th the patient was taken to the Derbyshire Royal Infirmary in a cab and was admitted under the care of Dr. Bentball. Immediately after admission the patient had another fit similar to the first, but of shorter duration, and this was followed by a condition of active delirium which continued until night. The patient was intensely jaundiced from head to feet, the colour being a deep orange yellow with a tinge of green. The eyes were widely open and staring; the pupils were dilated, but reacting to light. Respiration varied from 20 to 40 per minute. The pulse was regular, but full and bounding and of rather low tension. The percussion note over the lungs was resonant and no râles were heard. The impulse of the heart was strong and palpable all over the præcordial region; the action was rapid, about 130 per minute; the first sound at the apex was followed by a short blowing murmur. The liver dulness began above at the sixth space; the lower limit was ill-defined, but did not reach the lower edge of the ribs. The spleen could not be felt. The abdomen was not distended and there was no apparent tenderness on palpation. Numerous small petechial hæmorrhages were seen on the trunk and limbs. The knee-jerks could not be obtained. Slight convulsive attacks lasting only a few minutes occurred several times in the course of the night, but from this time they entirely ceased. On the following day the patient vomited once after drinking milk and this was the only time that he vomited during his stay in the hospital. The temperature on admission was 100·2° F.; at 10 P.M. it rose to 103·4°. The stools at this time closely resembled soft putty in colour and consistency, but later they became quite white. The urine was passed unconsciously on one occasion, but afterwards it was constantly drawn off by the catheter, the quantity excreted being fully up to the normal. During the next two days there was little change in the condition of the patient; he was usually in a restless state, frequently muttering and picking at the bed-clothes; he took a fair amount of liquid nourishment and slept for short intervals, but there was evidently great muscular exhaustion. On Nov. 20th his condition improved so that he was able to recognise and speak to his friends. On the evening of the 22nd he passed into a state of coma and early on the following morning he died.

The liver was frequently examined by percussion and it was thought that it diminished in size, but this was deceptive, as subsequently shown. The heart's action remained very rapid throughout and the respiration increased in rate during the last two days. The cardiac murmur disappeared before death.

Examination of the urine.—The colour of the urine was very dark, being almost that of porter. The reaction to litmus was acid. The specific gravity varied from 1010 to 1016. On boiling a light cloud of albumin was thrown down. Gmelin's test showed the presence of bile pigments. The quantity of urea was not less than normal. The following report was received from the Clinical Research Association: "The urine 'cleared' by warming, hence the sediment largely consisted of urates. The centrifugated deposit contained very large numbers of tube-casts of the following kinds: hyaline, finely and coarsely granular, epithelial, and, most remarkable of all, waxy (albuminoid). There was abundance of tubal epithelium, much blood and leucocytosis, amounting to a small deposit of pus. Crystals of uric acid were also present. Leucin and tyrosin were absent." From this report there is evidence of the presence of acute nephritis.

Examination of the blood.—The blood was examined during life by Dr. G. H. Milnes with the following results. The hæmoglobin amounted to 75 per cent. of the normal and the red corpuscles numbered 5,080,000 and the white corpuscles 21,200 per cubic millimetre. A differential count of the leucocytes gave the following proportions: (*a*) polymorphonuclea, 67 per cent.; (*b*) large lymphocytes, 12 per cent.;

(*c*) small lymphocytes, 6 per cent.; (*d*) eosinophiles, *nil;* and (*e*) myelocytes, 18 per cent. (*a*) is about the normal proportion; (*b*) and (*c*) are very strikingly diminished, as is also (*d*); and (*e*) ought to be absent from normal blood. The red corpuscles presented minute degenerative changes in their substance such as are described by Cabot as "endoglobular." Their contour showed no change.

Necropsy.—At the post-mortem examination the liver was found to be of normal size, firm to the touch, smooth on the surface, and deeply bile-stained on section. No obstruction was found in the ducts. Microscopical section showed no change sufficient to account for the symptoms. The spleen was rather larger and softer than normal. The right pleura was lightly adherent at the apex and the upper lobe of the lung showed evidence of an early stage of pneumonia. The heart showed no apparent disease. The kidneys on section looked congested; the capsules stripped readily.

Bacteriological investigation.—For the following results we are again indebted to the Clinical Research Association. Swab from the interior of the spleen: "This blood was inoculated into suitable culture media. Many micro-organisms were isolated, but the only ones followed out proved to be the bacillus pyocyaneus and staphylococcus pyogenes aureus. We believe that a very few streptococci are present, but could not prove the same." Swab from the liver: "The organism present in greatest number is again the bacillus pyocyaneus; it is only accompanied by a few micrococci and a large bacillus (also seen in previous specimen) which is probably putrefactive and gained access after death. Note.—In sections cut from the liver and stained appropriately we failed to detect any organisms. The whole process is probably one of pyæmia caused by the bacillus pyocyaneus."

Remarks by Dr. TICKELL.—In view of the bacteriological results there is every reason to believe that the disease was essentially an infection due to micro-organisms, and as the man had been engaged in the process of skin-curing it is most probable that in his occupation he was brought into contact with the poison by which he was infected. Taking into consideration the nature, course, and termination of the complaint any one of the terms infectious, febrile, or malignant jaundice might have been considered appropriate in describing it. But the first two terms are used as synonyms for Weil's disease, which is described as "a peculiar form of acute infectious disease characterised by jaundice, swelling of the spleen, and nephritis."[1] Now, there is evidently a very close relationship between this disease and the case described above, but it was possible clinically to exclude Weil's disease by the absence of swelling and tenderness of the liver and marked enlargement of the spleen. In the early stage the case was suspected to be one of alcoholic neuritis. Later, when the jaundice became intense and was followed by high fever and delirium, the case began to assume the aspect of acute yellow atrophy, particularly as the liver dulness appeared to be less than normal. But it will probably be conceded that in certain cases, even when no affection of the liver is suspected, the difficulty in accurately marking out the lower level of the liver dulness may be considerable. At the latter end of the case there were certain features that rendered the diagnosis of acute yellow atrophy improbable. The temperature, instead of becoming subnormal, continued to rise until it finally reached 104·8°. The vomiting, instead of becoming urgent and continuous, entirely ceased. Lastly, the urine showed no leucin or tyrosin and no diminution of urea. The diagnosis from phosphorus poisoning had to be considered, but it was excluded by the high fever and by the absence of serious long-continued vomiting and epigastric pain. It is sometimes stated that in the toxic forms of jaundice the colour is light and in many cases is of a lemon tint, but here is a practical illustration of the fact that the jaundice of infection may be quite as intense as any that is caused by obstruction of the common bile-duct.

GOVERNMENT CIVIL HOSPITAL, HONG-KONG.

A CASE OF BUBONIC PLAGUE TREATED WITH LARGE DOSES OF CARBOLIC ACID; RECOVERY.

(Under the care of Dr. J. MITFORD ATKINSON, Principal Civil Medical Officer.)

IT is usually thought that carbolic acid is a very poisonous substance which may prove fatal in doses of even a few grains. This misunderstanding is in part due to confusing the local harmful effects of the drug with its constitutional action. When taken in a concentrated form carbolic acid acts as a strong caustic, producing severe local effects, and constitutional symptoms follow after absorption has occurred. The local symptoms, however, do not appear if the drug is freely diluted before it is given. When this is done it is possible to study the constitutional symptoms much more carefully and it is then found that the toxic dose of carbolic acid is very much greater than was formerly thought to be the case. With regard to the employment of this drug for bubonic plague it is evident that one case, though very interesting, is not sufficient to found an opinion on, but the result in this case would justify its careful employment in others. It is evident that large doses of the drug should be used with great caution until we know of more cases in which large doses have been employed.

The patient was a Scotchman, aged 30 years, a sanitary inspector, and was admitted to the Government Civil Hospital, Hong-Kong, on June 9th, 1899, with the following history. He had been very hard-worked and had been exposed to the trying climate of the colony at the worst season of the year. On June 6th, in the course of his duties, whilst conveying a plague patient down the staircase of 34, Bridges-street to the ambulance, he slipped and abraded the skin over his left elbow. The following day he felt pain in the left groin. He complained of fever on the evening of June 8th and was seen by Dr. F. W. Clark, the medical officer of health, on the morning of the 9th and was ordered to the hospital.

On admission at 7.30 P.M. that night the patient's temperature was 104·3° F., his pulse was 108, his tongue was furred, and he was slightly delirious; there was distinct tenderness in the glands of the left femoral region which were obviously enlarged. He was ordered two grains of calomel as the bowels had not been opened and 15 grains of migranin were given to relieve the headache. As he complained of want of sleep at 11 P.M. one-fifth of a grain of morphia was given hypodermically. On June 10th, in the morning, plague bacilli were detected in blood taken from the enlarged glands in the groin. Three grains of carbolic acid were ordered in the form of a pill to be given every four hours. At 12 midday the temperature was 105·6°; four grains of phenacetin with one grain of citrate of caffeine were now given. At 4 P.M. the skin was moist and the temperature had fallen to 105°. It was then felt that if carbolic acid was going to do any good it must be pressed, so at 4 P.M. one ounce of the following mixture was ordered to be taken every two hours: carbolic acid (Calvert's pure), 12 grains; syrup of ginger, one drachm; and chloroform water to six ounces. Four doses were given that evening; the man was still complaining of great headache. On June 11th the mixture was resumed at 7 A.M. and between that time and 8.30 P.M. six doses were given; there was now a distinct left femoral bubo. In the afternoon the headache was much better, the urine was being carefully watched and was not at all dark-coloured, and there was no vomiting. At the evening visit the pulse was 90 and much stronger and the temperature was down to 102·6°. On June 12th at the morning visit the man's pulse was 80 and the temperature had fallen to 101°; he had had two doses of the mixture in the night. The bubo was much larger and there was considerable brawny swelling all around it. The medicine was continued every two hours whilst he was awake; two doses were given in the morning and another two in the afternoon. The patient was still slightly delirious. On June 13th at the morning visit the patient complained for the first time of slight pain on passing urine; the dose of the mixture was now reduced one-half and given every four hours. The temperature had fallen to 99·8° and the pulse was 72. The patient was much more cheerful. On June 14th a note was made that the bubo was less swollen. As the patient's temperature was practically normal on June 15th the dose of the mixture was reduced to two grains of carbolic acid thrice daily; this dose was continued to June 26th when strangury was again complained of, the urine was dark coloured, and the carbolic acid was now discontinued. All this time the bubo had been maturating and on June 27th it was incised. As is usual with these plague buboes convalescence was considerably delayed and it was not until July 18th that the patient left the hospital. The diet during the acute stage was liquid and stimulating, six ounces of brandy being given in the 24 hours. This was reduced on June 16th to two ounces daily.

Remarks by Dr. ATKINSON.—I was led to try this drug by

[1] Vide Allbutt's "System of Medicine," vol. iv., article, Weil's Disease

reading an article in THE LANCET of April 8th, 1899, p. 958, by Mr. A. Wiglesworth on the Treatment of Influenza by Large Doses of Carbolic Acid, and certainly in this case it appears to have been efficacious. During the three days June 10th to 12th over 200 grains of carbolic acid were given internally with the result of lowering the temperature, allaying the vomiting, and relieving the severe mental depression. Undoubtedly this drug has marked antithermic and antitoxic properties. Professor Baccelli has advocated its use given hypodermically as a cure for tetanus and this case tends to prove that it may be useful in the treatment of bubonic plague.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The Open-air Treatment of Tuberculosis.

WE continue our report of the adjourned discussion on the Open-air Treatment of Tuberculosis at the meeting of this society on Nov. 28th (see THE LANCET, Dec. 2nd, p. 1517).

Dr. HERON remarked that among the noteworthy features of this debate was the fact that hitherto every speaker in it had expressed approval of the open-air treatment of tuberculosis. Indeed, from the medical profession all the world over there had for two years and more been heard a chorus of praise of this method of treatment. This unanimity of opinion was a very significant fact, for no form of curative treatment of that disease had enjoyed even for a year anything approaching to a general expression of approval by the profession. Another noteworthy feature of this debate was that hitherto no speaker had mentioned the importance of classifying tuberculous patients before submitting them to treatment. They ought to be able to recognise, even before physical signs were detected in the lungs, an attack of tuberculosis in the pre-tuberculous stage; and there were other cases having only a slight infection of a small portion of one lung, or perhaps of both lungs, and a mouth temperature seldom, or better still never, going above 99·5°. These were the cases anxiously searched for by all who wished to achieve success in the treatment of tuberculosis. Many of these cases tended strongly in the direction of spontaneous cure, no matter what system of rational treatment was adopted. This tendency to self-cure was a factor difficult to put in the place it should occupy when they came to speak of the value of remedies and of cures. The principles involved were very simple. The patient lived as much as possible in the open-air, occupied while out-of-doors with some physical employment or amusement. He ate abundantly of wholesome food, and his bedroom was so arranged that within proper limits he as nearly as might be slept in the open air. Surely that could, in every detail, be easily and perfectly accomplished by anyone possessed of ordinary common sense and intelligence, provided he had a few practical instructions and lessons from a medical man who was also possessed of ordinary common sense and the necessary knowledge of the subject. There was, it seemed to Dr. Heron, in many quarters a tendency to make far too much of the rules for the guidance of people to undergo this open-air treatment. Some of these rules were irritating as well as needless—at least, to patients in the categories just mentioned. These cases needed something more invigorating than merely walking up to the top of an incline and down again. They would improve in health if they were allowed to join in such games and exercises as cricket, fives, golf, skating, rowing, bicycle riding, and so on, provided the forms of these games were properly regulated to the pathological, physical, and social conditions and surroundings of the patients. It often happened to them to have to advise phthisical patients who must work, not only for their own sakes, but also for the sake of those dependent on them. In these cases the open-air treatment could only be approximately carried out while the patient worked. To such as these Dr. Heron suggested as occupations gardening, fruit-growing, some branches of farming, civil engineering, the work of a land agent, and so forth. He mentioned the case of a hospital patient who came every month to London to receive a large dose of tuberculin and who employed the intervals between his visits to the hospital in trading in the country as a pedlar. That for some months had been his occupation and his health was very good when last he went to the hospital. It was worth while keeping in mind the fact that many phthisical patients were tormented by the thought that they did not know how to earn a living except by going back to an employment which would almost certainly kill them. By telling them of these out-of-door occupations one might now and then give some little comfort to a class of men and women whose lot was often a very sad one. Another rule which was, in his opinion, an irksome and needless one for people in the earliest stages of tuberculosis was the regulation which required such persons to see their medical advisers daily. These patients, having been once thoroughly overhauled and classified by their medical man, should be advised to see him again—all meanwhile going well—in, say, a fortnight's time. Still speaking of these cases of early tuberculosis, he thought the daily and frequent taking of temperatures in such cases was also unnecessary and irksome. In these hopeful cases while they continued to do well temperatures taken daily for a week at a time every month and kept for reference would meet the necessities of the case. Whether the temperatures were taken in the mouth or in the rectum was not, in his opinion, a matter of importance, provided the oral temperature was taken with ordinary precautions. Many people did, however, object to the taking of their temperatures in the rectum. Of course, the objection was, as it had been neatly phrased in this debate, an æsthetic one, and he thought that even æsthetic objections should be allowed due consideration.

> "You may break, you may shatter the vase if you will,
> But the scent of the roses will hang round it still,"

aptly expressed this æsthetic objection. When the oral temperature frequently or habitually ran up to 100·5° it indicated that the case was much further advanced than those which had just been referred to. With the more advanced cases there would be of necessity a very great modification of the kind of physical exercise or occupation recommended for the patient. Dr. Heron did not think life in a sanatorium was necessary to the proper carrying out of the open-air treatment. He believed this treatment could quite well be followed in a man's own house, provided it had the necessary advantages of position and surroundings and provided he was under the supervision of an efficient medical adviser. If the patient could not afford that method of treatment in his own house or lodging, then he had better go to a sanatorium where he would be taught how to prevent the spread of his disease within himself and, what was of much more importance, to healthy members of the community. They could all remember, Dr. Heron remarked, how sad was the history of certain private lunatic asylums where the medical man was the proprietor of the asylum as well as the medical adviser of its inmates. That state of things brought a slur upon their profession. The dividend making medical man was not unknown in connexion with sanatoria and it rested with the medical profession to make sure that their patient should not go to the man who improperly combined the two vocations of hotel-keeper and medical adviser to the same people. There were plenty of medical men in England and out of it who owned sanatoria and who were the medical advisers of the patients who lived in them. Among those medical men there were men as worthy of our respect as were anywhere to be found and who never for a moment would permit their professional duties to occupy any other than the highest place. When it was necessary for them to send patients to a sanatorium they could send them to these men. But he felt it his duty to sound a note of warning.

Dr. EDWARD SQUIRE agreed very thoroughly with the remarks of the last speaker. He had had 12 or 13 years' experience of the fresh-air treatment of consumption, but with the addition of regimen only during the present year. The principle underlying the system was this—that they were now applying measures for cure which had hitherto been employed only for prevention. It had been said that those very early cases which tended to cure without anything being done were most suitable, but this treatment certainly promoted the rapidity of recovery even in these. He would remark in the first place that he had never seen any harm arise from a patient living altogether in the open-air. Some patients required bracing, but some required a warmer climate, and they must select the proper climate for each case. As to the effects of this treatment the first to be observed were a diminution in the

temperature and improvement in the appetite at the very outset. But these did not always mean improvement—e.g., where the temperature was lower but with wide daily excursions. Over-feeding was not good for all cases indiscriminately. Certain bronchitic cases did not improve with open-air. Hæmoptysis was no contra-indication to open-air treatment. He did not agree with tents unless the tent was always kept partly open, otherwise it might get very stuffy. All the good of the day might be undone by the patient spending the evening in a close billiard-room. Constant care was required. As to the definition of cure, 12 months without return was hardly long enough, for patients had come back with fresh mischief. More experience was wanted. He could not say even yet which cases were likely to do badly by too much exposure to open air. They were at present in the enthusiastic stage with regard to sanatorium treatment and successes mainly were recorded. What was now wanted was to formulate the contra-indications.

Dr. S. T. PRUEN (Cheltenham) said he was very glad that several speakers had referred to the financial aspect. Building a sanatorium was a very expensive matter. As to verandahs, he did not agree with their being done away with. There were objections to them in some ways, but they were advantageous from the patient's point of view. They should never be greater in height than in width. It was their improper use which was to be deprecated. He believed in open drains and no traps, as advocated by Dr. Poore. As to the feeding, he had at first hardly believed patients could take such huge amounts of food as they took at Nordrach. At least five out of six could—it was sometimes difficult to deal with that sixth patient. The question of the nervous system was of supreme importance.

Dr. POORE remarked that one of the previous speakers had expressed doubts whether the open-air treatment was suitable for those cases complicated with bronchial catarrh. *A propos* of this he referred to an Arctic expedition where two of the company who were taken on board after starting—two whalers—were the subjects of chronic bronchitis. The medical officer of the expedition had told him that the prolonged exposure had had no effect on the bronchial trouble of these men. They were neither better nor worse at the end of the long journey. He wished to direct the attention of the society to certain statistics which he had abstracted from the supplement of the Fifty-fifth Report of the Registrar-General bearing on the effects of pure air of country districts as compared with that of cities. Thus the death-rate per 1,000,000 of children under five years of age in London was 6581, that of Lancashire 5364, and that of Hereford and surrounding district 2200. He also quoted other statistics showing that the same death-rate gradually increased in the metropolitan area from circumference to the centre, that of the Strand in the centre being four times as great as that at Hampstead. The incidence of the different causes of death on different professions also went to prove that phthisis was much more fatal among those living in towns than in country districts. Thus the phthisis death-rate for the whole country in all occupations among males between 25 and 65 years of age was 185. The same figure for London only was 277 and for all agricultural districts 135. Again, the death-rate from phthisis among the hotel servants of London reached the startling figure of 607, while that for the industrial districts collectively was 357 and that for agricultural districts 352. The death-rate from phthisis among London labouring men was 384, among agricultural labourers 115, among law clerks 272, among barristers 116, among medical men 105, and among parsons 67. These figures showed very clearly the effects of open-air and the reverse on pulmonary tuberculosis. Turning to the question of construction of sanatoria, he thought they should never be more than one storey high. One angle of the building, not a side, should face north, for in that way the sun visited every side every day. The offices should be well removed from the living rooms and all baths and sinks separated by well-ventilated lobbies. He believed in aseptic sanitation, for the gases of putrefaction probably favoured the growth of the tubercle bacillus.

Dr. ALFRED HILLIER congratulated the society on the reception it had given to this important subject, and he contrasted this with the reception given to a paper on the same subject by Dr. Mac Cormac many years ago. Referring to the open-air treatment, he said that the relationship between the bacteriology of tuberculosis and this treatment had not been sufficiently considered. Open-air meant pure air and pure air meant the absence of the respiratory impurity of confined or indoor air. What was the nature of this respiratory impurity? The impurity meant the presence of certain effete animal products exhaled in the breath vapour, as toxic as the effete products of the kidneys or sweat glands if re-absorbed into the system. But these products, toxic to the host, were nutritious to the parasite. The tubercle bacillus was a vegetable parasite and for the nutrition of all vegetables in agriculture there was nothing so nourishing as manure—another form of effete animal product. This analogy to the growth of vegetables in the soil was too close to be overlooked. With abundant foul air and re-absorption of respiratory impurity the tubercle bacillus flourished within the host. The tissues of the host were the soil in which the tubercle bacillus grew. Cut off the supply of this effete animal product, the respiratory impurity, and the starved tubercle bacillus withered up and died; tuberculosis was thus checked or cured. That might not be the beginning and the end of the *rationale* of the open-air treatment, but it went far to explain it.

The discussion was again adjourned to the next meeting of the society on Dec. 12th.

PATHOLOGICAL SOCIETY OF LONDON.

The Pathology of Tabes Dorsalis and General Paralysis of the Insane.

A MEETING of this society was held on Dec. 5th, Mr. WATSON CHEYNE, the President, being in the chair.

Sir WILLIAM GOWERS, in resuming the discussion on Dr. Mott's communication on the Pathology of Tabes Dorsalis and General Paralysis of the Insane, said that he had little to criticise in the statements made by Dr. Mott and much to endorse in the remarks of Dr. Buzzard. The question of the preponderant relation of tabes to syphilis had, he believed, long passed into the region of admitted fact. He had been through his notes of the last hundred consecutive cases of tabes seen in private, with the result that in 68 cases there was unquestionable evidence of past syphilis, and in 12 per cent. the disease was probable—there was evidence of a chancre of uncertain nature; making 80 per cent. of certain or probable syphilis. In the remaining 20 per cent. the disease was possible—that was, there had been exposure to the ordinary risks of infection, emphasised in most cases by the occurrence of gonorrhœa, often several times. All of these cases were males. In not one of the hundred cases could the disease be excluded by the absence of any exposure to risk of its contraction in the ordinary way. That was the only way to certainly exclude it, for all had met with cases in which constitutional syphilis had occurred without any history of a primary sore. In juvenile tabes there was seldom any doubt. The evidence of inherited syphilis was usually clear. It was so in six cases that he had seen. Few were in a position to criticise the facts which Dr. Mott had given them regarding general paralysis and its relation to tabes. His own experience emphatically confirmed the statement by Dr. Buzzard that when the symptoms of the two diseases were associated those of tabes preceded those of general paralysis. He had seen a large number of cases in which the latter supervened on the former, but he could not recall any case in which the paralytic symptoms led the way and the knee-jerks afterwards became lost. The common rule in cases of this class was for the legs to remain normal, or more commonly for an excessive knee-jerk and foot clonus to accompany progressive loss of power. In the tabetic cases of general paralysis a history of syphilis was as common, and its presumption as constant, as in pure tabes, but he did not think that this statement could be made of the paralytic class, although the facts were not easy to ascertain. Of the juvenile cases of general paralysis described by Dr. Mott he had had no experience. The only cases of the kind he could remember had been cases of arrest and irregular impairment of cerebral function, not progressive, associated with inherited disease, but most readily explained by actual syphilitic disease of the brain. The pathological questions he must leave to those with whom remained the opportunity for elaborate investigation. Dr. Alexander Bruce did not perhaps remember how strenuous, 25 years ago, was the advocacy of the dependence of the changes in the posterior columns on the meningitis over their surface, and on the interstitial and perivascular alterations, although perhaps not in the precisely minute form which he

had suggested. The theory disappeared for a reason which he thought still held good. These extra-neural alterations were inconstant, especially in degree, and they could be equally well explained by the secondary neuroglial and vascular alterations which occurred whenever there was a primary degeneration of the nerve elements—for example, in that which was secondary to a traumatic process or a focal myelitis. On the other hand, the theory failed entirely to account for some of the most remarkable facts of tabes—viz., the restriction of the symptoms to function; the manner in which, in the slighter cases, without cutaneous sensory disturbance, there was only degeneration of the fibres of the posterior median columns, which they had learned to regard as the upward path from the afferent muscle nerves; the frequent, almost usual, loss of sensation to pain, which might be almost complete throughout the legs, with no impairment to sensibility to touch; or, again, what was indeed a rare condition, there might be loss of sensation to touch only, limited to the soles of the feet. They could not explain such a functional limitation by a process essentially random in its incidents, whereas all the teachings of their pathological knowledge since had been that such restricted impairment was the usual result of the action of a toxic blood state on the nerve elements themselves. The differences in their function involved variations in their susceptibility. It must be remembered, moreover, that in the case of other toxic agents the chief effects were produced on the extremities of the nerves, lessening in degree as they approached the centres. He thought, therefore, that the slightness of the changes which could be perceived in the cells of the posterior ganglia was not a matter for surprise. If the fibres which conducted from the ganglia were degenerated more completely, might not that be in accordance with some law not as yet understood? They must expect to meet with facts they could not yet explain. The question of the identity of tabes and general paralysis as one disease, due to the same cause, acting on cerebral and spinal neurons, seemed to him to be very much a question of words. But could even common causation create identity of diseases which differed so widely in symptoms as the cerebral form of general paralysis and the pure form of tabes? Did the fact of blending forms and cases with common symptoms create identity when there was a complete contrast between the extreme forms? If so, they ought to regard a scrofulous tumour of the brain and pulmonary phthisis as one disease; or even erythema nodosum and the acute articular rheumatism which might coincide with it. But would that correspond with the common use of the term "disease," which was connected with a definite aggregation of symptoms rather than with their discerned causation? Dr. Mott had asked whether the toxic agent "did not lower the durability of the nerve elements so that some other factor" induced a premature decay. He (Sir William Gowers) had long maintained that that was the essential secret of the mysterious incidence of these degenerative diseases. An average man inherited an equal vitality in all his structures. He went to pieces at last, like the famous "one-hoss shay," all at once, in mature, equable, senile decay. At the other extreme were those who possessed structural elements, which might be in some part of the nervous or the muscular system so deficient in vital endurance that they decayed as soon as, or soon after, complete development had been reached. Such were some cases of idiopathic muscular atrophy, of congenital atrophy of the optic nerves, in which sight failed in a whole family soon after puberty, or of "hereditary ataxy" (Friedreich's disease), in which certain structures of the nervous system decayed soon after or before maturity was reached. In other cases the defect in vital endurance was only sufficient to render some structures less resistant than others—to cause, for instance, the motor nerve structures to decay before others, under the influence of grief; or the nutrition of the cerebral structures to give way under the strain of work or anxiety. This disposition to decay, sometimes inherent, strongly or slightly, seemed to be induced artificially by toxic and perhaps other influences. Their influence was specific in many cases, probably in more than they could discern, and they led to failure of nutrition, to decay, and degeneration. This might seem spontaneous or be evidently excited. They should understand many things more clearly if they perceived that acquired influences might have the effects of congenital dispositions.

Dr. GEORGE H. SAVAGE began by saying that he felt it difficult to consider pathology only from the microscopical changes found in tissues after death, and though he at once allowed that in both general paralysis of the insane and in tabes they had similar evidences that destructive changes had been going on, yet he could not as a consequence of finding similar results admit that exactly similar causes must have been at work. The débris in a wrecked house was the same whether the fire originated in lightning or a paraffin lamp. On the other hand, from the clinical side one had to acknowledge that as a rule toxic agents which were easily absorbed affected similar parts and tissues in similar ways—that, in fact, the toxic element affected the least stable and most developed tissues. They saw all the symptoms of general paralysis of the insane in the various stages of alcoholic intoxication, and with lead and even with influenza they saw similar symptoms. The same parts were more or less affected by the poison; it was only in the more stable poisons or in those which had a specially pernicious effect on certain tissues that they got decay. Syphilis certainly did produce changes in the highest nervous tissues, and was associated in the production of both general paralysis and tabes. He ought, perhaps, at once to have entered upon his special experience of the two diseases and he did that now. First, then, he was fully convinced that syphilis played a great part in the production of both the diseases; next, he recognised that tabetic symptoms very frequently preceded those of general paralysis by years, but he must also say that he had seen a good number of patients who had had tabes and insanity for many years and had not become general paralytics. He had gone so far as to teach that any one of the many symptoms of tabes might give rise to insane delusions which might last for an indefinite time; he had known gastric crises associated with ideas of poisoning and others in which cutaneous and Charcot troubles had been attributed to the direct influence of the devil. He had seen acute maniacal attacks occur in tabes which had not been the prelude to general paralysis. It was interesting to him that many tabetic patients improved in their ataxy with the development of mental symptoms, and he had at present under notice two ataxic patients who periodically had outbreaks of mania which were associated with great gain in physical power. He might say, however, that similar symptoms occurred in tabetic general paralytics. In an asylum one met with patients suffering from general paralysis having every degree of ataxy, and in some the symptoms were more evident on one side than on another. It was interesting to note how rarely he had met with ataxic symptoms in the female general paralytics, so that just as ataxy was more common among men than women so was ataxic general paralysis more common among the males. He thought it was also to be noted that the occurrence of ataxy and insanity was in his experience common or more common in patients with, than in those without, a neurotic heredity, whereas it was well known that in general paralysis the neurotic heredity was not very strong. He remembered in years gone by seeing a statement by a French writer that ataxy was the specific equivalent of general paralysis with syphilis in the neurotic. It might be altogether fanciful, and he might find himself ignorant of first principles, but it had struck him that there might be more than one tabes. He had been struck with the frequency with which one met with certain changes in the parietal areas of the brain in cases in which general paralysis with spastic symptoms occurred and in whom there was found to be a very large amount of secondary change in the lateral columns of the cord. In some cases one saw such changes in one side with similar change in the cord, while on the other side of the cord marked changes occurred in posterior columns, but he had failed to localise any centre in the cortex answering to these latter. Was it possible that there might be at the same time a double process going on in the highest cortical centres, and also in the cord, to which the tabes might to some extent be secondary? Before concluding he would give definitely his answers to the questions proposed. He was not convinced that general paralysis of the insane and ataxia were the same though he admitted they probably had similar causes and certainly left similar pathological débris. He was inclined to agree with Dr. Mott that the decay of the neuron, followed by secondary inflammation, were parts of the diseased process in both. He thought a toxic cause was the chief cause and the syphilitic was the most common toxin, though he believed there might be an autotoxin in some cases derived from rapid brain change such as occurred in acute delirious mania. He had seen a good many cases of general

paralysis which had only the history of a soft sore, not of a true Hunterian chancre, and in his experience the history was almost always that the attack of syphilis had been slight with but few secondary symptoms. He must say he had seen just as many or more patients who had been thoroughly treated by mercury as not. He believed the decay might arise in some cases with peripheral neuritis, but he felt that as one who had done little with the microscope for 20 years he was only able to speak with the diffidence begotten by age.

Dr. FERRIER remarked that he had been much impressed by the facts and arguments adduced by Dr. Mott in his address and more fully set forth in his recent County Council Asylum's "Archives of Neurology" in favour of the view that general paralysis and tabes were one and the same disease, affecting different parts of the nervous system, and in all probability conditioned by the same cause—viz., syphilis, hereditary or acquired. That was the provisional conclusion at which, in common with many other neurologists, he had already arrived as the result of his own clinical experience. That conclusion was more than supported by the important fact that Dr. Mott had found evidence of inherited syphilis in all the 22 cases of juvenile general paralysis which he had had the good fortune to be able to examine. That fact, taken with the observation of Krafft-Ebing that general paralytics were insusceptible to inoculation with the syphilitic virus, was to his mind a convincing proof of the syphilitic origin of general paralysis and of much greater importance than such evidence of syphilis as was obtainable by questioning adult patients themselves. Syphilologists had found it impossible to obtain satisfactory evidence of syphilitic infection in a large percentage (as many as 36 per cent. according to Hirschl) of cases of undoubted syphilitic skin and other affections. If this were so in respect to affections of which there was no question as to their syphilitic origin they need not doubt the syphilitic origin of general paralysis, even though they failed to obtain a satisfactory history of syphilis in quite all. Some patients were honestly not aware of having had syphilis. Others, by reason of their mental infirmity, were incapable of giving trustworthy information, while not a few wilfully concealed the fact. Notwithstanding all the difficulties in arriving at the exact truth there was evidence of antecedent syphilis, certain or highly probable, in 81 per cent. of the cases recently carefully investigated by Hirschl. The analysis of 70 cases of general paralysis which Dr. Ferrier had seen in the ordinary course of consultation practice during the last eight or nine years showed 67 per cent. of certain syphilis and it was probable in 8—i.e., 75 in all. Only 14 per cent. denied all knowledge of syphilitic infection, and he thought that that residue might be discounted and that without much risk of error it might be said, "No syphilis, no general paralysis." All the other assumed causes of general paralysis, such as stress and strain, alcoholic and other excess, included in the comprehensive term "civilisation" had been tried and found wanting in Hirschl's masterly analysis. In his own experience general paralysis occurred as often among those who had led comparatively uneventful lives as among those who had been subjected to the stress and strain of brain work and anxiety, and he would regard civilisation as a comparatively unimportant factor and syphilisation as the essential one without which all others were inadequate. The same remarks all applied in regard to tabes; but the important question was this, Why in one case was the cortex cerebri affected and in another the posterior columns of the spinal cord? That the two affections did occur together in a certain proportion of cases was admitted, but the percentage was not a large one—probably not more than 10. But even that small degree of conjunction was of great significance. Judging by the number of cases of tabes as compared with those of general paralysis occurring in the ordinary course of consultation practice he would say that tabes occurred three times as often as general paralysis, for in the same period in which he had taken notes of 70 cases of general paralysis he had 210 cases of tabes. The pathological process in both cases was a sclerosis, whether this was to be regarded as an inflammatory process or not. He would not venture to express an opinion on the vexed question whether the degeneration was primarily parenchymatous or primarily vascular and interstitial. Much might be said on both sides. But the process, whatever it was, which leads to adhesion of the membranes and hyperplasia of the interstitial tissue was a painless one. In this it differed markedly from meningitis or meningo-encephalitis, specific or non-specific. The absence of pain in the head on percussion or deep pressure in general paralysis was a noteworthy feature which contrasted strikingly with what occurred in the cortical syphilitic affections. Here, even if pain were not spontaneously complained of, there was tenderness on deep pressure over the affected area. The absence of pain on pressure was a valuable diagnostic aid in distinguishing between cerebral syphilis and general paralysis.

Dr. J. F. PAYNE commented on the excellence of Dr. Mott and Dr. Batten's specimens. He regarded Dr. Mott's paper as a most important contribution to the subject. Previously histological evidence was wanting. Fournier had pointed out that these two diseases were clinically very nearly related, if not identical; but anatomically his proofs were wanting. In regard to the question of the relation in order of sequence between the vascular and the parenchymatous changes there were many analogous conditions in which the sclerosis was always secondary; and these facts went a long way to justify the statement that the nerve degeneration precedes the connective tissue growth. That both diseases depended on syphilis was now generally admitted. If a common syphilitic origin was proved this went a long way to prove the identity of the diseased process in the two disorders. There was a time when a diffuse cirrhosis of the liver due to syphilis was not admitted; a gummatous deposit was acknowledged but not the cirrhosis. Again, there was not much doubt that there was a cirrhotic disease of kidney in children which was due to inherited syphilis. These were some of the instances of syphilis producing a diffuse inflammation—a fact which was only admitted of recent years. He had seen cases of primary lateral sclerosis which were undoubtedly due to syphilis, and such cases improved under anti-syphilitic remedies. One case he mentioned was that of a woman who got perfectly well, and a remarkable fact about her case was that while recovering from what was evidently a late tertiary syphilitic lesion she developed syphilitic iritis.

Dr. HALE WHITE said that he had heard with very great pleasure the address which Dr. Mott had given, for he had been accustomed for some years to teach the same views as Dr. Mott had expressed. It appeared to him that the most reasonable opinion to hold was that a person once having had syphilis was therefore more liable than others to become the victim of a chronic morbid process such as Dr. Mott had described and that it might attack any part of his nervous system, but that it particularly first attacked one of two parts—namely, either the grey matter of the cerebral cortex or the posterior nerve-roots of the lumbar and lower dorsal cord central to the ganglia. In the first instance the disease was comparatively rapidly fatal because of the large amount of nervous tissue involved, this probably acting, as Dr. Mott had suggested, partly through absorption of toxic products of disintegration of nervous tissue. In the second case the disease lasted longer and was naturally followed by a degeneration in the posterior columns as in the first case it was succeeded by a degeneration of the lateral; it followed from this view that, as Dr. Mott had said, often the two types were combined in the same patient at some period of his illness; and it also followed that if a patient came before them with what appeared to be ordinary tabes, and if as the disease went on the observer was struck by the rapidity with which it developed, then he could almost certainly predict that it would ultimately turn out to be of the general paralytic type. Dr. Hale White had often found that true and of great value in prognosis, but he regarded it as essential to remember that while there were two great clinical groups in which the result of the syphilis was manifested either in the cortex of the brain or in the lumbar and dorsal posterior nerve-roots central to the ganglia, so there were cases in which the first effect was seen in the peripheral nerves, such, for instance, as those in which the first symptoms of tabes was either an ocular paralysis, laryngeal paralysis, or even paralysis of some other muscles. In these cases it seemed reasonable to assume that the peculiar syphilitic result now under discussion was shown first in certain of the peripheral nerves. Also in those cases in which optic atrophy was the first symptom of the disease it was first shown in the optic nerve. It was, he thought, no answer to this view to say that it was unlikely that the same cause would damage sometimes one part of the nervous system and sometimes another, for other poisons, such as

dead, did the same. Perhaps the reason for this selective power of poisons and the toxins of specific fevers was to be sought in slight chemical differences in the composition of the tissues. He quite agreed with Dr. Mott that general paralysis and tabes were most often seen in those in whom the earliest symptoms had been slight.

Dr. F. E. BATTEN said there were two points to which he would like to allude; the first was the condition of the peripheral nerves and their terminations, and the second was the origin of the degeneration of the posterior columns. With regard to the first point, after referring to the anatomy of the "muscle-spindles" and the fact that Professor Sherrington had definitely proved their sensory nature, he said that he had examined several such spindles from cases of tabes. In his first cases he had endeavoured to examine this organ by serial sections of the muscles; this method was unsatisfactory on account of the bulk of the muscle, but so far as it went it seemed to show that the nerve supply to the spindle was normal. The more satisfactory method which he had adopted in his late cases was to tease out the muscle spindle by Sihlor's method and then to undertake its examination by serial sections in longitudinal and transverse diameter, staining the muscle spindle by the Marchi and Weigert-Pal methods. By those methods some of the spindles appeared perfectly normal; others, however, showed degenerative change near the nerve termination—that is to say, when stained by Marchi's method fat granules were present in the intrafusal muscle fibre near its equatorial region. The nerve passing to this region of the spindle appeared in some cases to be normal. Such an observation would seem to support the view that degeneration might take place at a point remote from the cells, the intermediate portion of the nerve remaining unaffected. He had endeavoured to reproduce the condition experimentally by section of the nerves passing to a muscle and then examining the nerve terminations at periods from one to 14 days after such section, but he had failed to produce any condition similar to that found in tabes. He believed that the degeneration in the muscle spindle was secondary to the changes in the posterior root ganglion and were not primarily due to the toxic action of the virus on the nerve terminations, for, as Dr. Mott had pointed out, there was evidence to show that the condition of the cells of the posterior root ganglion depended on peripheral stimuli. Had the condition been primarily a terminal one, then early degeneration of the posterior root ganglion and the peripheral nerves might have been expected, whereas it was well recognised that degeneration of these parts was a late manifestation of the disease. With regard to the second point—viz., the origin of the degeneration of the posterior columns—he believed that there was considerable evidence in support of the view suggested by Dr. Bruce at the last meeting—namely, that the degeneration started from the point where the posterior nerve roots entered the spinal cord. It had been shown, he said, that degeneration of the posterior columns occurred in cases of cerebral tumour, and, further, that in some such cases the degeneration limited itself to the posterior columns, the posterior roots being unaffected. He could not on that occasion deal fully with this condition, but he hoped shortly to bring forward definite evidence on that point. Dr. Batten illustrated his remarks with lantern slides and microscopical specimens.

The discussion was then adjourned to the next meeting of the society on Dec. 19th.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Nov. 21st, the President, Mr. William Horrocks, being in the chair.—Dr. F. Eurich gave an exhibition of pathological specimens, including (1) a specimen of Anglo-Sarcoma of the Kidney; and (2) Primary Melanotic Sarcoma of the Spinal Column which invaded the dura mater and destroyed the spinal cord by pressure. There was no metastasis except in the lungs. The specimen was spoken of as one of extreme rarity.—Dr. J. B. Hall showed a Popliteal Aneurysm the result of a comminuted fracture into the knee-joint.—Dr. Rabagliati read notes on a case of Suppurative Pelvic Cellulitis. The patient was a woman, aged 27 years, who had been married two and a half years. The catamenia were regular but accompanied by pain. She had never been pregnant. On Dec. 7th, 1897, she complained of general abdominal pain, especially in the right iliac region, also of febrile symptoms. The abdomen was somewhat distended, the resistance being much increased in the right iliac region. The percussion note was clear over the greater part of the abdomen, but was dull just above Poupart's ligament for about an inch. The pulse was 112 and the temperature was 101·5° F. The urine was clear and contained no albumin or sugar. On Dec. 10th the dulness had increased upwards. The patient being under ether and the presence of pus having been confirmed by an exploring needle an opening was made a little to the outside of the pubic spine and a large quantity of fœtid pus was evacuated. The cavity was washed out with boric lotion and a drain passed into it. On Dec. 13th there was discharge of fæces and flatus from the wound; the patient's general condition had improved greatly. On Jan. 20th, 1898, the wound had almost closed but the patient now complained of pain in the right thigh extending down to the knee. On vaginal examination an elastic swelling was felt in the situation of the right broad ligament which was supposed to be the abscess already opened. The temperature was normal or subnormal at about this time. The patient continued to improve and was discharged on March 5th to the convalescent home. There was still a sinus present with very little discharge. She was re-admitted in March, 1899. There was still a sinus present and she desired to have this cured if possible. The sinus, which was found to admit a probe for five inches, was on March 17th opened up and scraped with a sharp spoon and then packed with gauze. The patient went on satisfactorily till April 2nd when she complained of headache; the temperature was 97°. On April 4th her temperature rose to 102°, she vomited and developed the symptoms of influenza, and died on April 11th. The post-mortem examination showed no general peritonitis. The vermiform appendix was normal. The ileum was adherent to the abdominal wall and there was an opening into the bowel communicating with the sinus, which extended from the skin to the back of the ramus of the pubes. There was a dilatation of the right Fallopian tube containing fœtid pus.—Dr. Johnstone Campbell related a case of Addison's Disease. The post-mortem examination showed extensive tuberculous disease of the suprarenal bodies. Dr. Campbell expressed the opinion that there was a hope of good result in the future from the treatment by suprarenal extract. He suggested the employment of suppositories made up with a neutral fat.—Dr. J. Kerr showed a patient who had since been found to have Kidney Trouble and who 30 hours previously had sudden Blindness in the Left Eye, a small patch of the field from the fixation point downwards and outwards being preserved. The fundus presented the typical picture of embolism of the central artery. In two of the vessels which appeared to be veins broken-up blood columns were seen slowly progressing with pulsating movements in one case towards, in the other from, the papilla.—Dr. Kerr also showed a spare woman, single, who, as the result of a knock on the cheek 10 years previously, had Deviation of the Eyeball 30° up and 27° out. Several operations, advancement of both internal and inferior, and tenotomy of the external and superior, recti and of the inferior oblique, had restored her appearance, the deviation with Maddox test being now 2° out and 6° up. There were accommodative asthenopia, contracted field of vision, and pharyngeal anæsthesia, and after a full discussion of the features of the case the diagnosis of traumatic hysterical contracture was arrived at as affording the best explanation.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—At a meeting of this society held on Dec. 1st the President, Dr. J. B. Ball, made the following proposal: "That it is desirable that this society should join in the scheme in connexion with the Soldiers' and Sailors' Families Association to afford gratuitous medical attendance in their own homes for the necessitous wives and families of soldiers and sailors now serving with the colours, and that a sub-committee be formed to carry out this resolution." The proposal was carried unanimously.—Mr. C. B. Keetley proposed that the following should be nominated members of the sub-committee to carry into effect the resolution which had just been passed by the society: the President, Dr. J. B. Ball; the secretaries, Dr. G. D. Robinson and Dr. G. P. Shuter; the treasurer, Mr. T. Gunton Alderton; and Mr. F. Lawrance, Mr. W. H. C. Staveley, Dr. S. D. Clippingdale, Dr. A. H. W. Clemow, and Dr. H. Campbell Pope, with power to add to their number.—Dr. W. H. Waller seconded the motion, which was carried unanimously.—Mr. McAdam

Eccles then showed a case of Excision of Carcinoma of the Ascending Colon in a woman, aged 45 years. The patient was operated on for cystic right ovary, which was removed, and on further examination the whole circumference of the ascending colon was found to be involved by a large growth. The diseased portion of the gut was brought to the surface and stitched to the skin. Eight days afterwards the tumour was removed with complete success, the woman making a good recovery. No secondary deposits were found at the time and there had been no recurrence since.—Remarks were made by the President, Mr. L. A. Bidwell, Mr. C. B. Keetley, and Dr. E. P. Paton. — Dr. George Johnson showed a case of Intracranial Growth affecting the first eight cranial nerves in a sister of the last patient. After minutely describing and demonstrating the patient's symptoms Dr. Johnson said that the lesion was improving under treatment and that it was probably of a syphilitic character. — Dr. Seymour Taylor showed a patient who was suffering from Injuries to Nerves due to a fall of a few feet. On one side the seventh and eighth were affected and on the opposite side the eighth nerve alone.—Mr. C. B. Keetley showed a patient on whom he had operated for Extensive Suppuration of the Abdominal Wall and who had attended the West London Hospital for an offensive purulent discharge from the vagina. An incision was made in the middle line, a large quantity of pus and air being evacuated. Another incision was made to the right of the umbilicus; on passing the finger through this opening into the pelvis the cervix could easily be felt, but the body of the uterus had disappeared. He diagnosed the case as one of pelvic suppuration, the pus having tracked up into the abdominal wall.—Dr. G. D. Robinson showed the following two skin cases for Dr. P. Abraham:—1. A case of Condylomata about the Anus in a child, aged one year; there was no history of syphilis, maternal or otherwise, and the child was rapidly cured by the external application of zinc oxide and calomel. 2. A case of Pityriasis Rosea of Gibert showing points of resemblance to tinea circinata as well as to eczema seborrhœicum.

KIDDERMINSTER MEDICAL SOCIETY.—A meeting of this society was held on Nov. 17th, Mr. J. Lionel Stretton, the President, being in the chair.—The President read notes of a case of a man, aged 44 years, upon whom he had operated for Malignant Disease of the Ascending Colon and whom he had first seen in May last when he was in bed recovering from what appeared to be a second attack of appendicitis, the first having occurred about a month previously. On May 31st an exploratory incision showed that there were some dense adhesions enclosing a fæcal abscess communicating with the cæcum. The appendix was not seen. Recovery was uninterrupted and the man was left with an artificial anus through which nearly all his fæces escaped, only an occasional natural motion being passed. On July 31st, two months after the first operation, it was decided to attempt to close the artificial anus. On opening the abdomen the cæcum and ascending colon appeared to be thickened and vascular and there was a tight stricture in the ascending colon which with difficulty admitted the little finger, but there was no appreciable growth. As the patient had not consented to a radical operation nothing further could be done. He soon recovered from the operation, gained weight, and was able to get about. Towards the end of September the contraction of the opening caused difficulty of defæcation and the abdomen was opened on Oct. 11th. A considerable mass of growth was found in the ascending colon and as it was quite impossible to remove it a lateral approximation was effected between the ileum and transverse colon by means of a simple incision and suture. The patient suffered from considerable shock necessitating transfusion with saline solution and for this reason it was impossible to divide the small intestine between the site of the approximation and the cæcum. At the present time he had quite recovered, his bowels acted normally, and the artificial anus was daily contracting.—Dr. O. C. P. Evans read notes of three cases. The first was a case in which he had performed Cholecystotomy and removed five gall-stones. The patient took the ether rather badly, vomited once or twice during the operation, became gradually more exhausted, and died in 28 hours. The second case was that of a man, aged 48 years, from whom he had removed several inches of the small intestine. The patient died a few hours after the operation. The third case was that of a man, aged 32 years, who had had several attacks of abdominal pain with constipation for which he had been in the habit of taking aperients for the last five years. He was admitted into the Kidderminster Infirmary on June 22nd, the bowels not having been moved for four days. On the 24th the abdomen was opened in the middle line below the umbilicus. The appendix was found to be very thickened and adherent to the omentum and was removed after division of the adhesions. The patient made a good and uninterrupted recovery and was discharged quite well 21 days after the operation.—Dr. B. Addenbrooke read a very interesting paper on an Infective Theory of Chorea and a discussion followed.

ÆSCULAPIAN SOCIETY OF LONDON.—A meeting of this society was held on Dec. 1st, the President, Mr. A. W. Galloway, being in the chair.—Mr. A. H. B. Kirkman read a paper on the X-ray Production and its Medical Uses. In it he pointed out various errors of diagnosis remedied by the use of the screen.

Diagnosed by surgical light.	*Diagnosed by x ray light.*
1. Separation of radial epiphysis.	Green-stick, fracture of ulna, lower third.
2. Fracture, impacted, through humeral tuberosities.	Oblique fracture of the humerus at the junction of the upper and mid fourth.
3. Fracture of the lower end of the fibula.	No fracture present.
4. Fracture of the radius and ulna.	,, ,, ,,
5. Intra-capsular femoral fracture.	Separation of pubes 3·7 centimetres.

They trusted for localisation of a foreign body to the method introduced by Mr. E. W. H. Shenton, which was that the apparent rate and amplitude of movement of the foreign body was in direct proportion to its screen distance.—Mr. Shenton demonstrated several cases on the screen, among these being a Fracture of the Tibia with much loss of bone, now being re-formed, and one of the Fibula the outer and inner edges of which were in apposition. He also showed a case of inward lateral luxation of the first phalanges in a case of Chronic Rheumatoid Arthritis.

Reviews and Notices of Books.

Die Krankheiten der Eierstöcke und Nebeneierstöcke. (*The Diseases of the Ovaries and Parovarium.*) Edited by Professor A. MARTIN. With 173 Illustrations in the Text and Five Plates. Leipsic: Arthur Georgi. 1899. 8vo, pp. 990. Price 24 marks.

THIS book is the second volume of Professor Martin's work upon the Diseases of the Uterine Appendages. It includes a consideration of the diseases of the ovaries and parovarium. The whole is under the editorship of Professor Martin with the assistance of a numerous band of well-known writers. A very considerable part of the present volume is either the sole work of the editor or is written in collaboration with him. The first article upon the Anatomy of the Ovaries is from his pen, while their embryology and physiology are described by Dr. Wendeler. These two articles, a type of all the rest, are remarkable for the admirable summary they contain of the writings of various authors and furnish a clear and critical survey of the theories held at the present time upon the subjects of which they treat. The epithelium of the Graafian follicles is held by Dr. Wendeler to be derived from the embryonic connective tissue of the ovary and not from the germinal epithelium, and this view is further elaborated by him in his classification of ovarian tumours. Under the Physiology of the Ovary the relation of menstruation to ovulation and pregnancy, the corpus luteum, and the changes occurring in the ovaries at the menopause are very fully gone into, and a number of other important subjects is dealt with.

The chapter upon the frequency of the various diseases of the ovaries and the symptoms most commonly met with is written by Professor Martin and is the outcome of his experience of some 6000 cases. In describing circulatory disturbances and inflammations of the ovary he has had the coöperation of Dr. Orthmann. Hæmatomata of the ovary

are rare, although they may occur in almost any kind of pelvic disease. Circulatory disturbances of the ovaries are looked upon as an important factor in cases of inflammatory disease, while the authors are inclined to think that acute oöphoritis is more often diagnosed than met with. Great stress is laid upon the avoidance of over-fatigue during the periods and rest after childbirth for the prevention of chronic oöphoritis. The remarks upon the great importance of prolonged rest in bed in the treatment of all kinds of inflammatory conditions of the ovaries are of great value. Operative procedures should only be resorted to as a last resource and whenever it is possible only the diseased part of the ovary should be resected. Simple cysts of the ovary are separated from cystomata and cysto-adenomata and are regarded as arising from the Graafian follicles or corpus luteum as a result of inflammatory processes. Dr. Orthmann has contributed a good account of all that is known of the infective granulomata so far as they affect the ovaries. Professor Martin finds that ovarian tumours occur in about 10·7 per cent. of cases of ovarian disease. He further finds that the period of greatest sexual activity and that of the menopause is the time at which they usually begin to grow. He does not think that pregnancy favours their growth. Dr. Wilms, in his article upon Ovarian Dermoids, has employed the name "embryome" instead of the commoner term "dermoid," and recommends its use as more correct. He recognises cystic and solid ovarian embryomata corresponding to cystic and solid dermoid and teratomatous tumours. The clinical features of these tumours are described by Professor Sänger who met with them in about 18·77 of his cases of ovarian tumours. The symptoms, diagnosis, prognosis, and treatment of ovarian cysts have been very ably handled by the editor and the result is an account of the greatest importance and value. The only valid contra-indications to ovariotomy are laid down as universal inseparable adhesions and advanced malignancy. Vaginal ovariotomy is recommended in the case of small tumours without many adhesions and for inflammatory conditions of the ovaries under the same circumstances. Tumours lying above the pelvic brim, those likely to be very adherent, and malignant tumours, the latter forming nearly 25 per cent. of all cystic tumours of the ovary, should be treated by abdominal section. Colpotomy should be carried out either through the anterior or posterior vaginal fornix according to the position of the tumour and the relations of the uterus. The work concludes with an account of the Anatomy and Pathology of the Parovarium by Professor Kossmann.

It is impossible for us to notice more than a small part of this book of nearly 1000 pages. The articles are of a most complete character and the views of others are quoted and discussed in a manner which for thoroughness leaves nothing to be desired. The bibliography is good, while the illustrations, which are not relatively numerous, are clear and well reproduced. The two volumes of this handbook will enhance the already high reputation of the editor and the work will undoubtedly remain for many years the standard one upon this particular subject.

Mental Affections: an Introduction to the Study of Insanity. By JOHN MACPHERSON, M.D., F.R.C.P. Edin. London: Macmillan and Co. 1899. Royal 8vo, pp. 280. Price 12*s.* net.

THE present work consists of lectures delivered to students at the Royal Colleges' School of Medicine, Edinburgh, and subsequently extended and re-arranged to fit them for publication in the present form. While not exhaustive in scope or complete in detail they have a distinct value. The general level of the lectures is pitched high and this renders the work more suitable for advanced students than for beginners in the study of mental diseases. The description of heredity (pages 5 and 6) is excellent. Exception may be taken to the parallelism between insanity and tuberculosis drawn on page 12, but the treatment of the subject of other diathetic conditions in relation to the neuroses and to insanity is clear and admirable. The chapters on the evolution of insanity and on determining causes are sketched with a masterly hand.

Part II. begins with an account of the histology of the cerebral cortex and deals with the doctrine of the neuron and cortical localisation. These are subjects which can scarcely have justice done to them without the aid of illustrations, and their treatment bears the stamp of reading and literary culling rather than of actual insight and of acquaintance with the subject. Passing further, the author enters into realms of psychology. He gives an account of "unconscious mind" and discusses the important subjects of consciousness, sensation, attention, memory, will, and emotion. Much careful thought and skilful exposition are evident in the way in which these subjects have been dealt with.

Pathological considerations on the "physical stigmata" of degeneration are next taken up and these are followed by an account of the "mental stigmata" of degeneration. Throughout we can trace the strong influence of the French school of Morel, of Magnan, and of Féré. Dr. Macpherson's own views are presented with singular clearness. A logical continuation of the studies referred to leads to such subjects as mental confusion, hypochondriasis, mental obsessions and impulses, delusions and hallucinations, and this chapter winds up with a consideration of the subject of transformation of personality. The perusal leaves us with a feeling that the author's grasp of the subject is powerful.

Part III. deals with the various insanities; the varieties of mania, melancholia, circular insanity, and progressive systematised insanity (paranoia). The pages devoted to the last give the clearest exposition of the subject in the English language and may be compared with justice to the classical pages of Magnan. The confusional insanities of toxic origin are next deal with and puerperal insanity and delirium acutum (the latter often misnamed "acute delirious mania") are described. We notice what is an important feature in nosology—viz., the inclusion of general paralysis among the "forms of insanity resulting from auto-intoxication or from microbic toxins." Dr. Macpherson leans to the view of the "parasyphilitic" nature of this disease as enunciated by Fournier. Cretinism and myxœdema are included also in the "toxic" group, though it would be more consonant with our knowledge to place these together with such conditions as acromegalic insanity in a special "diathetic group." Acute and chronic alcoholism receive brief consideration. The insanity of the degenerate and the insanities connected with such neuroses as epilepsy, hysteria, and chorea are next treated of, and here a high level of excellence is reached and maintained. The insanities following traumatism, apoplexy, sunstroke, &c., are briefly touched upon, and the work concludes with medico-legal considerations on the criminal responsibility of the insane.

The book is written in a fluent and smooth style. There is a great deal of matter included in it which is only to be found in special memoirs or original articles. For advanced students and neurologists the perusal of the work would be a liberal education on the problems of mental disease. It is one which deserves to be carefully read and pondered over. The printing and general get-up of the book also deserve praise.

CHRISTMAS BOOKS.

A Queen among Girls. By ELEANOR DAVENPORT ADAMS. London, Glasgow, and Dublin: Blackie and Son, Limited. Pp. 288. Price 3*s.* 6*d.*—It is a pity that the queen's name was Augusta, for naturally she was always called Gussy, but with this slight blemish which was the fault of her

sponsors she was worthy of her title. The story may be confidently recommended to girls from "six to sixteen."

The Story of the Seven Young Goslings. By LAWRENCE HOUSMAN. Illustrated by MABEL DEARMER. London: Blackie and Son. 6*s.*—A droll story told in rhyme and beautifully illustrated. As inculcating filial trust we commend this stanza:

> "You must remember, wherever you are,
> You are the jam, but your mother's the jar;
> You are the twig, but your mother's the trunk;
> You are the crumb, but your mother's the chunk!
> So you must endeavour, whatever you do,
> Not to be clever, or think it's you;
> But intellect smother, and stick to your mother,
> For somehow or other she'll pull you through!"

No Surrender: A Tale of the Rising in La Vendée.—By G. A. HENTY. London: Blackie and Son. 5*s.* There is no more heroic episode in the annals of history than the defence of La Vendée against the overwhelming forces of the French Republic, and Mr. Henty's vigorous and resourceful pen does full justice to the extraordinary character of the struggle. The story tells how a young Englishman, who chances to be visiting his sister and her husband, a landowner of La Vendée, at the time that the uprising took place, recognises in the Republicans the enemies of his own country and espouses the cause of the peasantry. Need we say of one of Mr. Henty's heroes that adventures by flood and field crowd thick upon him, and that successes and disasters commingle in his career as an irregular soldier? He shows himself a brave and good fellow under all circumstances and eventually reaches England again in safety. This is an excellent gift-book.

The Doctor. By HENRY DE VERE STACPOOLE. London: T. Fisher Unwin. Pp. 247. Price 6*s.*—The doctor was a practitioner of the old school who tended the people in a remote part of Somersetshire. He was a charming old man and was rightly loved by his people, who "came to him like animals when they were ailing or sent him extraordinary entreaties to come to them written on the fly-leaf of a prayer book or the sheet of a child's copybook. These came to the surgery delivered by very little children as a rule, for the bucolic mind had grown to recognise that a messenger who could talk and explain symptoms generally returned with pills or a bottle of stuff to be taken at once and a promise that the doctor would 'call in the morning.'" Not that he neglected his patients in any way but he knew the west country constitution pretty well. We regret to say that he did not believe in modern research and was wont to express himself forcibly thus: "Damn microbes ..... there ain't any such things. ..... I remember the time when THE LANCET was a paper that a man could understand, that was when Watson was alive and Jenner and Gull were young men, but now its all packed full of microbes and antiseptic surgery. ..... Microbes there may be in London but there ain't any in Somerset." Indiana, his niece, is also a delightful character, naturally of a very different kind, and we must congratulate "Frances" through whose mouth Mr. Stacpoole speaks upon a very sympathetic portrait of a very noble character.

THE TALLERMAN FREE INSTITUTES.

To found a fresh medical charity in these latter days of manifold philanthropy is to invite criticism of a searching kind from both lay and professional quarters. With that consideration well in view it may be claimed that the objects of the organisation recently started under the name of the Tallerman Free Institutes are worthy of the careful attention and support of all who are interested in matters of the kind.

The population of Great Britain, as everyone knows, is specially prone to rheumatic and gouty affections and to crippling diseases of the osteo-arthritic type, commonly called "rheumatic gout" or "rheumatoid arthritis." It is upon the working-classes that the brunt of the mischief falls, and great numbers of the poor are bed-ridden and crippled from rheumatoid disease, "against which," to quote the words of a distinguished Frenchman, Dr. Edouard Chrétien, "the physician up till now confessed himself to be powerless." That opinion has been endorsed by various leading medical authorities.

Since 1893 the Tallerman apparatus, by which such conditions are treated with superheated air, has been in constant use at St. Bartholomew's Hospital, and has been used with good results at Charing-cross, the London, the North-West London, University College, and other hospitals, metropolitan and provincial. The treatment has been dealt with both as to theory and to practice in a monograph by Dr. Arthur Shadwell, and several clinical articles have appeared in our own columns, tending to establish the value of superheated air as a therapeutic agent when properly applied. It should be added, for it constitutes a different sort of claim upon medical attention, that Mr. Lewis Tallerman, the inventor of the apparatus, has used it solely in connexion with medical men and has not brought it under the notice of the public by advertisement. Those who could afford to pay for private treatment came upon the recommendation of their medical advisers. A more active policy was pursued with regard to the poor—first by placing apparatus at the disposal of hospitals and secondly by treating patients certified by medical men to be fit objects for such gratuitous relief. The success attained by these means led Mr. Tallerman to conceive the idea of bringing his treatment within the reach of the poor not only of the metropolis but also of the United Kingdom. Such a scheme has been shown to have chances of success by an experiment that has been conducted for upwards of three years in South London. Some charitable folk interested in mission work in that locality decided to apply the superheated-air treatment to cases of chronic rheumatic and other crippling maladies which were brought under their notice. They were enabled to do this under the supervision of an honorary medical officer with an apparatus placed at their disposal by Mr. Tallerman. Success was obtained by this kindly effort, as no less than 40 patients per annum have been reported so far relieved or cured as to be enabled to return to their work. By securing the free use of the mission-room, moreover, the local committee achieved their purpose at a nominal cost.

From these results the idea has originated of opening similar free institutes all over the country. The need of a comprehensive scheme arises from the fact that the general hospitals either have not the necessary apparatus or have not a nursing staff available for its administration. The work of the medical charities is already so extensive that there is little chance of their adopting a special treatment that makes further demands upon time and attention. A further consideration bearing upon this aspect of the new charity is that many inquiries have been made by medical men from time to time as to where poor patients could obtain this special treatment. A general committee recently formed in London have announced that they will consider all duly accredited and responsible applications from medical men and others desirous of forming local committees, while Mr. Tallerman has offered to provide the necessary apparatus free of charge. The recommendation of a duly qualified medical man as to eligibility of candidates will be necessary before admission to the benefits of the free institutes and an honorary medical officer will also be appointed. In this way gratuitous relief will be restricted to the necessitous poor. It will be seen that the fundamental motive of this charity is to bring the poor at no cost to themselves within the reach of a somewhat costly form of treatment of diseases that specially affect and disable that class of the community. The lines of the free institutes will be those of the ordinary medical charity, except that any appeal for support will be rather for practical work than for money.

COAL SMOKE ABATEMENT SOCIETY.—Sir W. B. Richmond presided at the usual fortnightly meeting of this society held on Nov. 29th at Buckingham Gate. It was reported that something under £100 had been received during the last few days to carry on the crusade against "Smoky London," besides hundreds of letters from all parts of the country promising support to the movement.

THE LANCET.

LONDON: SATURDAY, DECEMBER 9, 1899.

IT has always been held in THE LANCET that the opposition to vaccination throughout the country is not nearly so great as a casual observer would suppose from the noise and activity of the organised agitation against it. Similarly we have urged that the large proportion of defaulters in the years preceding the recent Act was due much less to genuine objection to vaccination than to mere parental indifference and to the laxity of boards of guardians. The course of events since the passing of that Act amply confirms our views and it now appears as if some of the most energetic opponents of "the rite" who have hitherto probably been deluded by their own misdirected enthusiasm are becoming awake to the real position of their crusade. At a conference of the Anti-Vaccination League lately held at Leicester there were various indications of this rude awakening. One of the numerous vice-presidents of the League read a paper on "Future Policy with regard to the Conscience Clause," in which he said that a year ago "they had not realised as they did now that the people were not properly organised, nor that so many of the non-prosecuting boards of guardians would so tamely let go their hitherto easily exercised control over their vaccination officers. They did not realise either that so many people, while objecting to vaccination, would be so readily frightened by the sight and sound of the doctor." Besides, they had discovered that their own "rank and file for the most part merited no such description as that of either workers or fighters." The same speaker had also become convinced "that the legalised intrusion of doctors into the homes of the people in this so-called free country had given them a power immensely greater than they ever ought to be allowed to possess," and that as regards the prevalence of vaccination "practically the only way to prevent any appreciable increase is to refuse to appoint a vaccination officer." The Parliamentary agent of the League stated that: "The conscience clause, he was afraid, had been the means of weakening their ranks by introducing a supineness which led to no further interest being taken in the question." Even allowing much for the natural reluctance of the supporters of a failing cause to acknowledge their reverses the admissions just quoted are very significant. It is now quite clear that the arrogant attitude originally assumed towards the conscience clause was a huge tactical blunder. The advice had been that certificates of conscientious objection should not be applied for and that vaccination itself should be refused. The hope apparently was that this course would result either in the breakdown of the administration of the law or in such an enforcement of it as would be followed by a widespread agitation and outcry against coercion. Instead the result has been that very many thousands of children who, if their parents had made application under the conscience clause, might have remained unvaccinated have now received their primary protection against small-pox, and anti-vaccination is thus "hoist with its own petard."

Another part of the policy of the League was conceived on similar lines and has resulted in similar or even more disastrous failure. Under the unamended law, perhaps, nothing served the purposes of organised agitation so well as frequent imprisonments. These usually occurred in the case of individuals who persistently refused to submit their children to vaccination and also refused to pay the fines. Well recognising the sentimental value of such proceedings and anxious to maintain a good supply of persons desirous of achieving the notoriety of cheap martyrdom, a special fund was created for the payment of expenses incurred in this way, and the whole thing became systematised as an important part of the propagandism of the League. Under the new Act we ventured to prophesy that it might be difficult to arouse popular passion in favour of a man so foolish as to choose imprisonment rather than take the trouble to apply for a certificate of exemption, though even here the possibility of success in a sufficiently ignorant community is not to be absolutely denied. But the League has encountered difficulties at even an earlier stage. There has been little opportunity of testing the value of imprisonment of parents under the new conditions because, as above noted, those who neglected the conscience clause have preferred vaccination to incarceration. There still remained, however, another string to the anti-vaccination bow. Many years ago a valuable impetus was given to the cause when certain Keighley Guardians who refused to administer the Vaccination Acts were sent to York gaol. The official character of this martyrdom had its own advantages, and it seems to have been hoped that a similar plan might prove successful under the new Act. Accordingly the Leicester Guardians, led by Mr. J. BIGGS and urged on by the League, refused to appoint a vaccination officer and indicated that rather than yield they would undergo all the punishment that could be imposed on them. However open to criticism the law may be on this question of vaccination officers Mr. CHAPLIN wisely determined that he could not afford to be defied by the Leicester Guardians. When their imprisonment had become imminent the majority of the guardians concluded that discretion is the better part of valour and they have now at the eleventh hour appointed an officer. This is a very serious blow to the League. Their exertions in support of the resisting guardians are well known. When the Leicester Board of Guardians visited London in connexion with the legal proceedings against them their visit was made the occasion of popular demonstrations and speeches at railway stations and a special fund was started to help to recoup the heroes for their heroism. All this being so their retreat in face of the foe must be very disheartening to their supporters, especially as the guardians' failure is of the same sort as had already been experienced with regard to individuals. Guardians and individuals alike began by making a bold show. The former would not appoint an officer and the latter would not apply for exemption certificates or

submit to vaccination. In the end both have yielded, so that the League remains almost without experience as to the value of imprisonment under the new conditions.

While the failure of these efforts to prevent a fair trial of the new Act (incomplete and unsatisfactory though it be) is matter for congratulation to all who have the welfare of the country at heart, it is yet premature to make certain assertions regarding recent success. In his speech to the Association of Public Vaccinators Mr. CHAPLIN referred to the Parliamentary return, issued in August, showing that in six months up to the end of June there had been 77,000 more primary vaccinations done by public vaccinators than in the corresponding six months of the previous year, this increase being at the rate of over 150,000 a year. He then went on to say that 300,000 was the number estimated as being annually left unvaccinated when the Bill was introduced, "and at that rate it would show that half the falling off had been recovered in the first year of the Act and before it had really got into thoroughly working operation." It is far from our desire to under-estimate the increase of vaccination, but there is no use in blinking the fact that this statement contains a fallacy. We have already while commending this speech had occasion to qualify our praise. We are not blind to Mr. CHAPLIN'S good work because we criticise his words. In the Parliamentary return no distinction is made between primary vaccinations rightly belonging to the half year in question and arrears of vaccinations which should have been performed in previous half years. Such arrears, under the influence of renewed activity by boards of guardians and their officers, afford ample opportunity for enormous increase of primary vaccinations independently of any addition to the percentage of vaccinations among infants under six months old. No doubt there has been some increase, and very likely a considerable increase, even amongst them, but in measuring the increase as he has done Mr. CHAPLIN has entirely overlooked a fact which vitiates his conclusion as to the rate of progress under the new Act.

THE large number of lives that are every year either lost or endangered in the streets of our big towns makes the subject of street accidents and the best way of securing prompt and efficient attention to them one of constant importance and interest to all and naturally to members of the medical profession in particular. There seems a peculiar wantonness in the waste of life brought about by accidents which occur (outside their very doors, so to speak) to individuals in the ordinary pursuit of their daily occupations. All the human race is liable to disease and despite all our efforts everyone must succumb sooner or later, but surely other modes of death should be avoidable in civilised communities, and to be disabled, much more to be killed, in the street seems a reproach to the municipality under whose protection the unfortunate sufferer imagined himself to be safe. Moreover, whereas illness for the most part is fatal to those who have either done this life's work or not yet begun it, to the very old or to the very young, the evil effects of accident are modified by no such consideration and it is only too often the most valuable life, one in its youth or prime of energy and activity, that is cut off or maimed by a misadventure in the street. That accident more or less frequent is as inevitable as disease is no doubt true where large numbers of people are concerned and so long as carelessness is an attribute of human nature. But if we cannot, therefore, entirely eliminate accident from the causes of death, at least it is our duty to mitigate its effects, to prevent fatality and to counteract injury in the very best and most effective manner possible. Is this done in our large towns? In London particularly do our arrangements for speedy aid to those injured or taken suddenly ill in the streets nearly approach the perfection at which we should aim and an approximation to which we have a right at the present day to expect? Opportunities for accident are always on the increase with the growth of traffic and of the means of rapid locomotion, such as the bicycle and the motor-car; but do our facilities for treating accident progress in a like degree? Considering the wealth of London, its position as a centre of civilisation, and the enormous number of its street accidents, there is probably no city in the world where such inadequate provision is made for dealing with these misfortunes. The unhappy victim of accident or sudden illness in our streets depends for his safety on the intelligence of the chance passer-by and the nearest policeman. The former very likely passes on reflecting that it is no business of his and that having no medical knowledge he will do more harm than good by interfering, or, on the other hand, he may stop to demonstrate this view if he belongs to that class of person which springs up as if by magic when there is an accident in a London street. A little crowd of well-meaning, but ignorant and therefore dangerous, persons surrounds the patient, limiting the supply of fresh air and precluding any medical man, if he happens to be near, from even seeing that there is a case in which his presence might be of immediate service. By this time a policeman has arrived and with the help of one of the original witnesses of the accident the victim is helped into a cab and probably arrives at a hospital with a compound instead of what was at first a simple fracture or with an extensive cerebral hæmorrhage where there might have been only a limited one had he been in medical hands before removal from the street. Obviously the sooner that medical aid can reach the victims of illness or street accident the better. Yet there is absolutely no method for quickly bringing such aid to the injured, and as a community we rely simply on the dangerous alternative of getting the injured by the best means that chance to be available to the nearest place where we may expect to find medical aid. It needs very little knowledge to realise how many cases of illness or accident must suffer an increased severity from this lack of early appropriate treatment. The general public have one line of treatment for all cases of emergency. If there is an accident, "Give him some brandy because he is fainting"; if he is ill, "Get some brandy to pull him round." In either case stimulants are probably the form of assistance least required or beneficial.

So far as the police are concerned it must not be supposed that we consider them either slow to appear on the scene of accident or unintelligent in rendering assistance. The very opposite, indeed, is the case in London, where the average policeman renders aid with more promptitude and intelligence than are to be found in any other similar body.

The policeman, however, has a multitude of duties, and it is too much to add to them those of a peripatetic and unqualified physician and surgeon. The treatment of accidents and illnesses in the street should not be left to him. It should be his duty merely to watch over the sufferer's safety and to protect him from molestation or injudicious interference till medical aid arrives. And there should be a system by which medical aid and proper means of transport can be quickly summoned. The stretchers on which the police wheel invalids to hospital are ill-adapted to the purpose. They are not primarily intended for this use, but for the conveyance of the intoxicated or the violent prisoner. For these they are, no doubt, admirable, and to them they might with advantage be restricted, horse ambulance wagons with suitable mattresses being used for the removal of the victims of accident and illness. In New York and in other large towns of America the advantage of such arrangements as these is well recognised and acted upon. One essential is a ready means of communication with medical aid, such means being freely distributed over the town. This necessity is met by the distribution of "calls," such as we use for fire, over all the principal thoroughfares. By means of these communication can be made by working a handle either with fire-station, police-station, or hospital, according to the number of times the handle is worked, directions for use being clearly stated on the call-box. The other end of the line of communication is represented by all the chief hospitals of the city, one hospital being assigned to each of the various municipal districts and being available for communication from all the street-calls in this district. At the hospital is kept an ambulance wagon always ready for use. A house surgeon and dresser on ambulance duty are ready to start in the wagon, and arrangements for harnessing the horse and getting the wagon off on the receipt of a call are similar to those which work so well at our own fire stations. When an accident happens in a New York street someone runs to the nearest street-call and rings it, the nearest hospital receives a signal showing where the call was given, and in a very short time the ambulance wagon with its house surgeon and dresser, bed, and appliances is there and the patient is being driven back to hospital by the time that a sufferer in a similar case in London would be huddled by a policeman and a chance assistant into a jolting four-wheeled cab or on to an inadequate stretcher. There has been improvement in recent years, so far as the number of available stretchers is concerned at least. These are to be found now elsewhere than at the police-stations, but they are still not of the best pattern and they are still all wheeled by hand. Horse ambulances are a dream of the future for the injured Londoner.

Before we can rival ambulance arrangements such as those alluded to three things are obviously necessary. First of all—and this seems to us to be the most important—there must be horse ambulance wagons and they must be stationed at hospitals. Only in this way can we bring aid which is both speedy and medically efficient. Secondly, for these ambulances to be of full service there must be ready means of communication from the streets to the hospitals where they are stationed. And thirdly, an adequate system of telephones must render communication from numerous telephone offices and from private houses to hospitals so readily accessible as to obviate delay when a street "call" is not near or available. All these provisions are made and are of daily service in towns in America that are far behind London in size and importance. Some approach to them is evident even in cities of our own, where the inhabitants have, at least, realised the necessity for horse ambulances. It is time, then, that the metropolis—even if an adequate telephone system must remain a vague desire—should at least contrive to supply its hospitals with horse ambulances and arrange some means of bringing them to the service of street accidents. That coöperation on the part of hospital authorities would be wanting we cannot suppose. Such arrangements as we recommend would not only be for the benefit of the public safety, towards which every hospital strives by its very existence to contribute, but would also stimulate in the younger medical men that zeal for skill and knowledge in the treatment of accident and disease which is heightened by nothing so much as by the constant chance of summons to cases of emergency.

THE possibility of the occurrence of superfecundation and superfœtation has been a theme of discussion from the time of the very earliest medical writings. Many reputed instances are recorded in the older medical works, and so common at one time was the belief in its occurrence that BRASSAVOLUS observes that he has seen an epidemic of superfœtation. Before considering the arguments for and against what we may generically term superimpregnation it is necessary to define what we understand by the terms "superfecundation" and "superfœtation." The former is usually applied to the separate impregnation of two ova discharged from the ovaries at about the same time or within a short interval of one another. Superfecundation is well known to breeders of animals, and the numerous instances that have occurred in which a negress has given birth to a black child and a mulatto, or a white woman to a white child and a mulatto, are sufficient to prove its occurrence in the human female. An interesting example of supposed superfecundation is the case of the Fellah woman at Alexandria who gave birth at the eighth month of pregnancy to a double-headed monster. One of the heads was white and the other was black, fully developed, and of negroid conformation, the change in colour commencing at the level of the neck. The husband was a Fellah whose skin was of a lightish brown colour. In considering such cases it is important to bear in mind, as SPIEGELBERG points out, that even the cases where women have given birth to children of apparently different races do not conclusively prove superfecundation. In crossbreeds the children do not always share equally the paternal and maternal peculiarities, and just as a child may sometimes resemble the father most and sometimes the mother most, so in the case of twins resulting from such a cross one may only resemble the father and the other only the mother. This may be the true explanation of some of these cases, but there are no good reasons for denying the possibility of the impregnation of two ova upon

separate occasions. Some obstetricians, indeed, are inclined to regard this as the commonest mode of origin of twin pregnancies, although the view is negatived for the majority of cases by the fact that in five-sevenths of twin pregnancies there is but one placenta. Superfecundation probably, therefore, occurs in women just as it undoubtedly does in many of the lower animals.

By superfœtation we understand the impregnation in a person already pregnant, after the first pregnancy has lasted some months, of a second ovum which has been recently discharged from the ovary and which belongs, therefore, to a second ovulation. For superfœtation to be possible it is necessary that ovulation should occur during pregnancy. That ova are discharged in at any rate some cases during gestation appears certain from the researches of LÖWENTHAL, SLAVJANSKY, MARTIN, and others. Admitting the occasional occurrence of ovulation in pregnant women, it has still to be proved that the ova can find their way into the uterus and can become fertilised. We do not yet know the exact period of pregnancy at which there ceases to be any unoccupied space in the uterus, nor do we know what is the latest date after conception has taken place at which spermatozoa may still find their way into the uterine cavity. It is certain that the ovum does not entirely fill the cavity of the body of the uterus during the first two to three months of pregnancy, and it is possible, therefore, that menstruation may occur during this time; but as we do not know the condition of the uterine ends of the Fallopian tubes we are unable to say whether ova can still pass into the uterus or not. It is quite conceivable that the uterine openings of the tubes may be blocked by the attachment of the ovum to the upper uterine segment at a very early period of pregnancy indeed. The theory of superfœtation owes its origin to the fact that cases have from time to time occurred in which women have been delivered of two apparently fully developed children, one three or four months after the other. In order to prove that such cases are examples of superfœtation it is necessary to show that they are not instances of twin pregnancies in which one child has been born prematurely and the other at full term. For how long a period of time one twin may be retained in utero after the expulsion of the other is shown by LINTON'S case in which abortion of one fœtus took place after four months gestation owing to placenta prævia, while the second fœtus was expelled in a mature condition five months and six days later. Very marked differences of development may be present in the case of twins born at the same time and it is well known that two children may attain to the same degree of development within very varying periods of time. Many so-called cases of superfœtation are valueless as proofs of the occurrence of this condition because those who described them have failed to recognise the difficulty of comparing the development of two children not born at the same time and therefore not seen together, except with the assistance of a very accurate record of their appearances, weights, and measurements. It is not only necessary to prove that a case of supposed superfœtation is not merely an example of twin pregnancy but it is also necessary to show that the patient is not the possessor of a double uterus. This is a condition met with not at all uncommonly and it is undoubtedly the explanation of some cases of superfœtation. Although we cannot deny the possibility of a second pregnancy beginning during the first two or three months of an existing pregnancy, yet, as we have shown, it is an improbable event. So far no case has been recorded in which the conditions we have laid down as necessary for its proof have been fulfilled and we are justified therefore in regarding superfœtation as still "not proven."

Annotations.

"Ne quid nimis."

THE MIDDLESEX HOSPITAL AND THE INVESTIGATION OF CANCER.

THE scheme for the special investigation of cancer which has been for some time under the consideration of the weekly Board and the Medical Committee of this hospital has now been completed and the report was presented to the last quarterly court of governors. The new wing of the Middlesex Hospital will be devoted entirely to cancer cases, and will practically be a complete hospital in itself. The opportunities thus presented for the systematic study of cancer will be immense and the authorities of the Middlesex Hospital will deserve the thanks of the whole of humanity for the thorough preparations which they are making for the scientific investigation of the disease. The inquiry will be under the supervision of a committee which will consist of the lecturers on medicine, surgery, and pathology, and the surgeons of the hospital. In order to carry out satisfactorily the work which will be required a special staff will be appointed consisting of a "director of the cancer research laboratories," an "assistant to the director," and a "medical officer and registrar to the cancer department." The duties of each are mentioned in the report, and Mr. A. G. R. Foulerton has already been appointed as director. For the use of the above staff three rooms have been set aside which will be utilised as follows: (1) the director's office for keeping records, &c.; (2) a room for use as a chemical laboratory; and (3) a room for use as a bacteriological and general microscopic laboratory. It will thus be seen that the authorities are determined to spare no expense or trouble in making the inquiry the most complete that has yet been attempted. The scheme of the observations has also been arranged, although this will naturally be subject to alterations as the work proceeds. A systematic bacteriological and histological examination will be made in every case of carcinoma or sarcoma which is admitted into the medical, surgical, or special cancer wards of the hospital, and the results will be applied to the attempt to formulate a satisfactory classification of sarcomata and to the investigation of the causes of carcinoma and sarcoma. It is further pointed out that whilst a satisfactory histological classification of the varieties of carcinoma has been in use for many years the classification on the merely histological basis is still far from complete in the case of sarcomata, so that much useful work may be hoped for in this direction; but still more interesting will be the results that may be obtained as regards the causation of cancer, using the word in its broadest sense. The report, which a perusal shows has been drawn up with a great amount of thought and judgment, suggests that in the case of carcinoma recent theories as to a blastomycetic causation require investigation. Although the theories in question have not been generally accepted, the arguments in favour of them have been very ably urged by Italian pathologists, and careful bacteriological examinations are required

if only for the purpose of obtaining negative evidence. The theory of a protozoal causation has now been practically abandoned by pathologists and probably will not require any further investigation. The older theory as to the direct origin of carcinoma from normal epithelial cells as the result of a perverted or irregular overgrowth, independently of the influence of any parasites from without, would seem to offer the line of research from which definite results would most probably be expected. Continuing along the lines of the report it is suggested that our knowledge of the pathology of sarcoma is even less definite than it is in the case of carcinoma, and there are reasonable grounds for assuming that all varieties of carcinoma are at any rate manifestations of one and the same kind of morbid action. But with regard to sarcoma there is reason to believe that the term as ordinarily used includes the results of more than one morbid process. Recent investigations (Curtis, Busse, and Nello Biargi) have shown that some of the cases, which clinically would be classed as sarcomata, are definite instances of yeast infection. There is also presumptive evidence that some of the cases which are clinically recognised as "lympho-sarcoma" may similarly be caused by a parasitic infection of some sort. On the other hand, there is no reason for supposing that all cases of sarcoma are due to a parasitic infection; the relation of some cases of sarcoma to chronic inflammation arising independently of the action of micro-organisms will require investigation. The result of these inquiries the nature of which has been so clearly laid down will be awaited with great interest by the whole medical world. We believe that a series of observations presided over by a competent committee who will criticise the work and question possible defects will be likely to have more satisfactory and reliable results than those obtained by individual observers. Not that we would throw doubt upon the accuracy of any scientific examination, but work supervised in the manner proposed by the Middlesex Hospital Cancer Investigation Committee is more likely to be free from fallacy than the work of a single investigator. Medical history shows over and over again how one theory has to give way to another, although it may have been founded by a most eminent observer; but the methods of modern research leave less and less room for errors, they are approaching nearer and nearer to perfection, and although such a state as this cannot be actually arrived at, yet we repeat that an inquiry conducted on the lines proposed is the one most likely to lead to trustworthy and valuable conclusions. Another advantage of work arranged on these principles would be that every promise is thus given that the inquiry will be continued over a long period of time and thereby data will be supplied which could not be obtained in any other way. The expense connected with the investigation will necessarily be great, but already a kind donor has sent £1000 towards the fund, and we trust this will lead many others to help in such valuable work.

THE LONDON SCHOOL BOARD AND UNDERFED CHILDREN.

ON Thursday, Nov. 30th, the London School Board rejected the report of the sub-committee which was appointed by the General Purposes Committee to consider the question of underfed children and referred the whole question back to the General Purposes Committee. The amendment which brought about this result was carried by 25 votes to 14. Shortly the position is this. There are at present several voluntary agencies which look after the feeding of such children and undoubtedly there are many who require to be fed from other funds than those provided by their parents. The sub-committee was dissatisfied with the present agencies and reported that counsel's opinion should be taken as to various points which may be summarised as follows: Has the School Board power to spend the ratepayers' money to feed the children or has it not? There is some interesting reading in the opinions of the various members of the sub-committee appended to the report. For instance, Mr. Macnamara thinks that there should be a "communal meal," the cost of which should be borne by voluntary contributions supplemented by public aid. Dinner tickets should be given, to be paid for by the parents when they were able. Mr. Macnamara thinks that many of the parents of the well-to-do artisan class would find it a matter of convenience and economy to avail themselves of the communal system of feeding their children. This is such an obvious truism that we wonder that a clever man like Mr. Macnamara should put it in print. It is undoubtedly economical to get someone else to pay for what you want. Mrs. Bridges Adams is of opinion that the expense of communal feeding should be met by new taxes, such as graduated income-tax and taxation of ground values. Communal feeding apparently starts from the idea that because the State has undertaken the teaching of childre it must therefore undertake all the accessories of teaching, or at least one of them. To teach a hungry child is useless. True; then let the State feed it. Carry this doctrine to its logical end and the State will be bound to provide clothing, healthy homes, sunshine, amusement (which is a very important part of education), and not only food but wholesome food. With regard to this latter horrible facts have come out lately in the police-courts about putrid condensed milk which is used for making cakes and caramel toffee. The School Board might well turn its attention to this matter. But as for the feeding there are at present at least eight associations of one kind or another for feeding hungry school children. If these were properly organised and not allowed, as they probably naturally enough do now, to overlap, the difficulty would be largely overcome. It is not the business of the School Board either to feed or to clothe children or, we should say, to teach some 36 different subjects. Municipal and State charities never have been successful in Britain and we do not think that they ever will. Hence the sad spectacle of old people dying from starvation rather than go into the "house." We hope that the General Purposes Committee will turn its attention to the organising of the present means of relief and leave the "communal" fads of Mr. Macnamara and Mr. Graham Wallas in the background.

THE DENTAL HOSPITAL OF LONDON.

PERHAPS the most interesting information which was given at the annual dinner of the staff and past and present students of the Dental Hospital of London which was held at the Hôtel Métropole on Dec. 2nd, was that announced by Dr. J. Walker, the treasurer of the hospital, to the effect that the new hospital in Leicester-square might be completed in October next year. Dr. Walker said that the progress of the institution in the past had been due largely to the devotion and interest of the past and present students, and he appealed with confidence to them to continue their help in the same substantial way as an evidence of their knowledge of the urgent needs of the institution. He had always taken a great interest in dental education, and another speaker confirmed this by announcing that Dr. Walker had founded an entrance scholarship of the value of £20, the subject of examination being chemistry and dental science. Mr. F. A. Bevan speaking largely on the financial side of the question referred to the increased facilities which the new hospital would afford both for educational and charitable purposes. He observed that the past year's record showed that over 60,000 cases had been treated in the hospital. The chairman,

Mr. Alfred Coleman, F.R.C.S. Eng., L.D.S., interposed and said that the fact was that teeth were getting worse every year, and Mr. Bevan thought that that was eloquent evidence of the pressing necessity of increasing the hospital equipments. Mr. Bevan referred also to the importance of good teeth in members of the army, for without good teeth the digestion of campaign rations was difficult and the soldier in such a case would lose health, strength, and courage. He hoped that the students would manifest that zealous interest which they had shown in the past to maintain this centre of instruction and make it worthy of its good offices. Mr. Charles Tomes, F.R.S., in proposing the toast of "The Visitors," said that he always cherished the opinions of lay members on the committee and particularly gratitude should be given to those who were responsible for the financial affairs of the hospital. He drew attention to the excellent progress that was being made towards placing the dental profession on the same high platform of ethics as the medical profession, and added that they were indebted to the British Medical Association for their action towards securing a dental representative on the General Medical Council. Lastly, he referred to the contiguity of Charing-cross Hospital to the Dental Hospital which enabled them to combine a plan of instruction to fit the dental student for his work. Dr. Montague Murray, the dean of Charing-cross Hospital Medical School, in replying to this toast, said that a cordial link had existed for many years between the school of the London Dental Hospital and that school of which he was dean. They had mutual interests and would continue to work together under the best relations, and he hoped that when the arrangements for the new London University were complete the Board of Dental Studies would form a worthy branch of the great mother profession of medicine.

OÖPHORECTOMY OR OVARIOTOMY OF CATTLE.

AT this year's meeting of the National Veterinary Association at Plymouth Professor Hobday read a very interesting paper upon the results following the performance of ovariotomy or oöphorectomy in cattle. He pointed out that the operation of spaying is at the present time performed in some parts of England upon calves and heifers and occasionally upon milking cows. It has, however, never been performed upon any large number of animals in this country, although M. Flocard, a veterinary surgeon of Geneva has lately published the results obtained by him in some 5079 cases. Professor Hobday has had the opportunity of watching the after-progress of some 42 milch cows operated upon by M. Flocard in England and has also performed the operation himself in 14 cases. The benefits claimed for the operation are that animals which are being prepared for the butcher fatten in a much shorter time without any increase in the quantity or the quality of their food, while their flesh is of much better quality than is that of cows which have not been spayed. The yield of actual meat is said to be about 6 per cent. greater. In milking cows the duration of lactation is prolonged for an average of from 20 to 24 months if the operation be performed within from 40 to 45 days of calving, while the animals continue to fatten at the same time. It is claimed that the milk becomes increased in quantity by some 1300 or 1400 litres per annum (the absence of œstrum rendering the average daily yield much more uniform and steady), and that it is also richer in quality for cream and for butter-making. Professor Hobday recommends if the operation be performed in milking cows that it should be done within five or six weeks of calving, when the animal is five, six, or seven years old. He prefers operating by the vagina. The operation appears to be a very simple and easy one. No after-treatment is required and the flow of milk is as a rule affected but for a few days. In M. Flocard's last 3000 cases there has been no mortality and there were only from 4 to 5 per cent. of accidents of minor importance. The late Professor John Gamgee attempted to introduce the operation as a routine one into England some few years ago, but the idea does not appear to have been taken up. If the benefits claimed for it are so great it is curious that it has not made greater way than it has. In the case of town dairymen who wish to avoid the dangers and trouble attendant upon pregnancy and parturition in their cows, and who often buy them soon after calving and fatten them for sale when the milk-supply fails, the advantages would appear to be very real. It seems a more rational method of quieting the animal for fattening purposes than the one usually adopted of allowing it to become pregnant. If it became the custom in this country to perform the operation more frequently than at the present time some very interesting data should be forthcoming as the result of analyses carried out upon the quality and quantity of the milk yielded by the spayed animals. Cases occur from time to time in the human subject in which the operation of ovariotomy or oöphorectomy is performed upon women during the puerperium, but in the great majority of such instances the babies are weaned. So far as we are aware no investigations have yet been carried out upon the changes produced in the milk by the removal of the ovaries in women. The difficulties and fallacies in the way of such a study are extremely numerous, and for the present we shall no doubt have to content ourselves with studying its effects in the cow. Further researches might throw an interesting light upon the debated question of an internal secretion of the ovary and its effect upon the metabolism of the body.

DUBLIN UNIVERSITY BIOLOGICAL ASSOCIATION.

THE inaugural meeting of the twenty-fifth session of the Dublin University Biological Association was held on the evening of Nov. 28th at Trinity College. Dr. W. S. Haughton, the outgoing President, occupied the chair and there was a large attendance. Dr. W. R. Dawson, the President for the ensuing year, delivered the inaugural address on the Rôle of the Blood-Supply in Mental Pleasure and Pain. Dr. Dawson reminded his hearers that mental disease had come to be regarded as a symptom of physical disease and something to be dealt with as such. This altered standpoint was rendered tenable by the more recent results of neurological work, especially that of Flechsig, together with the products of research conducted by the methods of Golgi and of Nissl. This mass of observation formed the foundation for a working hypothesis of mind, and if it were objected that the connexion between matter and consciousness was unthinkable a sufficient reply for practicable purposes was that mind could be profoundly affected and morbid states of consciousness produced by purely chemical means. The first problem encountered by the pathologist was that of the physical states underlying mental pleasure and pain. The states themselves, especially when morbid, were so absolutely different that it was not surprising that attempts at explanation had been made, one of which was the now abandoned theory that melancholia was due to brain anæmia and mania to brain hyperæmia. Yet there was here probably some modicum of truth. Dr. Dawson then recapitulated the results of various clinical and experimental observations with regard to the effects of anæmia, increased blood pressure, and inhalation of oxygen under high pressure. Fresh observation was needed on nearly every point, but he considered that the result of the inquiry hitherto might fairly be summed up as follows. 1. The emotional state produced by brain anæmia when gradual in onset, not too profound, and of some duration is

depression. 2. Anæmia of rapid onset and considerable degree tends to produce convulsions and excitement. 3. The characteristic feature of the general circulation in mental depression is high arterial tension, which helps to maintain, if it does not cause, the painful mental state; but there is no conclusive evidence of the condition of the cerebral circulation. 4. In mental depression the blood is impoverished. 5. Under experimental conditions high oxygen tension in the blood supplied to the nerve-cells produces excessive action and possibly exhilaration; but there is no real evidence that such symptoms are ever due to this cause under ordinary circumstances. 6. The characteristic feature of the general circulation in excitement, and probably in exaltation, is low arterial tension. Here again there is no direct evidence of the state of the cerebral circulation. 7. This low arterial tension helps to maintain, if it does not cause, the mental state. At the conclusion of the address Dr. W. A. Turner, after proposing a vote of thanks to Dr. Dawson, alluded to the importance of the scientific study of insanity and to the fact that mental disease had as sufficient a physical basis as any other bodily affliction. He mentioned that the almost universal recognition of this truth nowadays was about, as he understood, to lead very soon to the establishment of a pathological institute in connexion with the public asylums of Ireland. Whatever be the cause the fact that insanity is largely on the increase is undeniable. The attention of administrative bodies and of legislators is forcibly drawn to the necessity of facing the lunacy problem. Diffusion of medical and scientific knowledge would prepare the way for future social and legislative measures to deal with the crux of the problem—viz., the gradual prevention of the preventable insanities, the better classification on a medico-economic basis of the chronic insanities and allied infirmities, and the provision of "hospital" treatment and cure for the curable insanities. Pathological institutions for research would be attached to the last class of institutions. Dr. Turner's statement is therefore a very welcome one, for it is only by careful and prolonged study that we have any hope of unlocking the secrets of mental disease.

SENSORI-MOTOR PALSIES OF THE FACE AND EYES.

DR. JOSEPH FRAENKEL, of the Cornell University Medical School, has published in the *Journal of Nervous and Mental Disease* for October, 1899, a lengthy and detailed paper on the above subject. Two of the cases were instances of disease of the trigeminal nerve presenting a rather fortunate grouping of symptoms and 22 others were cases of tabes in which special attention was devoted to the relation between disorder of function of the facial and oculo-motor nerves and disease of the trigeminal nerve. The following case is referred to in detail. A man, aged 42 years, a musician, of Roumanian nationality, was said to have suffered two years before admission from tic douloureux. At that time he complained of attacks of severe pain in the left side of the face (areas of distribution of the fifth nerve) and of a sensation of constriction as by a heavy helmet on his head. On admission to hospital on Oct. 6th, 1898, the following further facts were ascertained. He was of temperate habits and had enjoyed good general health till his twentieth year. He was married at the age of 18 years and was the father of five children. He had a venereal "sore" at the age of 21 years. When he was a boy he had an affection (probably glaucoma) of the eye which resulted in vision being destroyed in his left eye. The symptoms of tic douloureux and of the "helmet" above referred to followed and eventually the vision of the right eye began to fail until the patient became totally blind. The sexual appetite had been considerably diminished during the present illness and paræsthesiæ were experienced in the extremities. "He is poorly nourished, station and gait are uncertain and ataxic, is moaning and groaning day and night with unbearable pain and paræsthesiæ in the head and face, particularly on the left side." When he was made to laugh or to cry only the upper branches of the left and the lower branches of the right facial nerve came into play. This gave to the face an indescribably contorted expression, while the left frontalis and orbicularis oculi and the right buccal musculature showed a disproportionate overaction. The left palpebral fissure varied, being at times almost closed and at times very widely open. Passive movements of the head were attended with a little pain. Both taste and smell were considerably impaired on both sides. The eyes showed a divergent strabismus and exhibited complete bilateral optic atrophy. The temporal and masseter muscles of the left side were atrophied and the soft palate was impaired as regards mobility, so that both swallowing and speech were imperfect in execution. The patient lost all his teeth, without pain, during the present illness. No paralyses or atrophies were found on the trunk, but scattered areas of anæsthesia, analgesia, and delayed conduction were met with. The knee-jerks were absent, but the plantar reflexes were lively. Considerable disturbances of tactile, painful, and thermal sensibility existed on the feet and legs. A careful consideration of all the facts rendered the diagnosis of tabes with early involvement of the trigeminal nerve highly probable in this case. Of the remaining 22 cases examined 10 gave distinct evidences of a previous venereal infection; in four cases an infection could be assumed from the symptoms and in eight no reliable information could be got. Eight out of the 22 cases gave a history of ocular disturbance prior to the date of examination, but in 14 no such history was obtainable. Thus it appeared that ocular disturbances (palsies, &c.) were present in 36·4 per cent. of the cases of tabes examined. Of the 14 cases which had enjoyed immunity from ocular derangements six gave a history of derangement of the fifth nerve, but two of these were complicated by optic atrophy. Of these six cases two were certainly and one was probably syphilitic. After discussing the theories of physiologists and neurologists on the phenomena of motor palsies as consequent upon sensory paralysis Dr. Fraenkel points out the probability that some at least of the oculo-motor palsies referred to in his paper were consequent upon sensory paralysis of the trigeminal nerve in one or more of its branches, and combining these facts with those of the case above noted in detail he concludes that some of the ocular and facial palsies of tabes are sensori-motor palsies.

THE METROPOLITAN WATER-SUPPLY.

THE Water Committee of the London County Council are waiting for the report of the Royal Commission before they can recommend legislation on the question of the future water-supply of the metropolis. In their report to the Council, however, the committee point out that the events of the past summer have again forced the question of the water-supply to the front. If the drought of 1898 was such as to render it advisable for the Council to attempt to obtain legislation in 1899, the drought of 1899, which has been far more severe, appears to the committee to make it absolutely essential that the Council should not lose another year in pressing forward its proposals. It is shown that the average daily flow of the Thames has fallen very seriously below the estimate of the Balfour Commission. The committee feel forced again to the conclusion in view of this datum "that the ultimate supply of the metropolis can only be assured by resorting to a source other than the valleys of the Thames and the Lee and moreover that it is urgently necessary that a scheme for this supply

should be set on foot without even a single year's delay." They propose accordingly that the Council's Welsh scheme shall be again presented to Parliament and that the whole of the scheme shall be embodied in one Bill. Finally, the committee suggest that it is possible that when the Royal Commission shall have reported the Council may have to reconsider its position, but at the present moment the committee feel that they can only recommend that a Bill be deposited for compulsory purchase in the same form as that of last year, subject possibly to certain alterations in details as to which the Parliamentary Committee would advise the Council at a later period. According to the Finance Committee the latest estimate of the Welsh scheme is given by the chief engineer at £17,000,000. As the whole financial question in regard to the acquirement of the London water undertakings has been gone into by Lord Llandaff's Commission the Finance Committee have not thought it necessary to have the figures revised with a view to bringing them up to date.

THE PARISH OF ST. GEORGE, HANOVER SQUARE.

WE have received a copy of the report on the sanitary condition of this parish for the year 1898 by Dr. W. H. Corfield, the medical officer of health. Apart from the ordinary statistics dealing with the sanitary condition of the parish, which is satisfactory, and a tribute to the administration Dr. Corfield publishes in the same number a special report on the water-supply, together with the correspondence following upon his animadversion on the quality of the water as reported by the public analyst which brought replies from the late Sir Edward Frankland and Sir William Crookes. We dealt with this interesting discussion at some length in THE LANCET of May 20th, 1899 (p. 1377). It refers to the relation of the increase in the amount of organic matter to the augmentation of cases of enteric fever.

A VETERAN POOR-LAW MEDICAL OFFICER.

ON Dec. 1st at the meeting of the Congleton Board of Guardians a letter was read from Mr. Charles Latham resigning the office of medical officer to the union workhouse, Arclid, in the district of Sandbach. Mr. Latham mentioned that being now in his eighty-fourth year he thought that the time had come for him to retire. For 58 years he had been a public official and he could truthfully say that throughout that period he had never received an unkind word or look from those to whom he was responsible. The resignation was accepted with great regret. Mr. Latham was educated at St. Bartholomew's Hospital and is a nephew of Dr. John Latham, who was President of the Royal College of Physicians of London from 1813 to 1819. He is probably the oldest member of the Poor-law medical service and has practically passed his whole life in Sandbach, where his name is a household word because of his acts of kindness and charity.

CONGENITAL IDIOPATHIC DILATATION OF THE COLON.

THE *American Journal of the Medical Sciences* for September contains an important paper on this rare condition by Dr. J. P. Crozer Griffith. The expression "congenital idiopathic dilatation of the colon" is applied to cases in which there is an innate tendency to dilatation not dependent on any organic cause. Thus cases of dilatation secondary to constipation and cases dependent on congenital stenosis are excluded. In idiopathic dilatation constipation is a result and not a cause. "Congenital" is applied not only to cases in which the dilatation is present at birth, but also to those (probably the more common) in which a tendency to dilatation exists. In some cases there are distension and constipation from earliest infancy; in others, less severe, distension is resisted for a time, but there is always deficient expulsive power; in still others there are periods of improvement in which distension disappears, although relapses almost always occur. In the absence of a necropsy idiopathic dilatation cannot be distinguished from dilatation from stenosis, nor when the symptoms appear late can it always be determined whether the constipation is a cause or a result of the dilatation. Dr. Griffith relates the following case. A boy suffered more or less since birth from constipation, for which very strong purgatives were required. At the age of five months distension of the abdomen, accompanied by pain, began. Sometimes for a week there was no action of the bowels; diarrhœa then occurred for several days with even increased distension. Sometimes the distension was relieved by a rectal tube which allowed the gas to escape. At the age of three years purgatives and enemata ceased to afford much relief and he was admitted to hospital. He was a well-nourished slightly pale child. The abdomen protruded enormously and was tympanitic. It measured 69·8 centimetres (27½ in.) in circumference. The umbilicus was pouting and peristalsis was visible. At times the outline of the greatly enlarged colon could be seen. The costal margins were everted by the pressure. Treatment consisted in hot fomentations (to relieve pain), the insertion of a rectal tube, enemata sometimes containing turpentine or assafœtida, and the administration of strychnine. Watery, greenish diarrhœa developed; the temperature rose to 105·2° F. the pulse to 140, and the respirations to 37. As the child grew weaker and the tympanites persisted right inguinal colotomy was performed. After an injection into the opening much semi-liquid fæces and gas came away through it and the abdomen diminished to its natural size. But the child's strength failed and he died on the fifth day after operation. At the necropsy no stenosis of the colon was found. Analysis of 24 recorded cases show a very characteristic group of symptoms. The principal and the first to appear are constipation and abdominal distension. In 22 cases one or both were observed within three months and generally within a few days of birth. In a small minority several weeks or even three months elapsed before intestinal troubles began. Relief of the constipation by purgatives or enemata usually produced diminution in the size of the abdomen. The stools only exceptionally were scybalous. Evidently the colon was unable to propel soft contents and not blocked by scybala. The prognosis is bad. Eighteen out of the 24 cases proved fatal; only two patients are known to have recovered. As to treatment massage and electricity seem indicated. The bowels must be emptied by purgatives or enemata. Both tend to further weaken the muscular power but they cannot be avoided. The rectal tube by removing the gas has afforded great relief. In three cases the intestines were punctured with a fine trocar. In one of the cases in which recovery took place an artificial anus was formed. The operation performed by Mr. Treves in a case of dilatation secondary to congenital stenosis—excision of the colon and uniting the small intestine to the anus[1]—might be useful in an idiopathic case.

THE CONTAGIOUSNESS OF INHERITED SYPHILIS.

DR. LOUIS KOLIPINSKI of Washington, D.C., describes in the *Maryland Medical Journal* of Nov. 25th two instances in which a syphilitic infant was the means of conveying the disease to healthy persons. In the first of these cases a young man gave syphilis to his wife who a year later was

[1] THE LANCET, Jan. 29th, 1898, p. 276.

delivered of an infant who died in about two months from syphilitic pemphigus. During its illness it was cared for by its maternal grandmother, a widow, over 60 years of age. Syphilitic snuffles and sore-mouth made the taking of milk by the child difficult and the grandmother, against warning and protest, often inserted her finger into the baby's mouth to remove the accumulated mucus and secretion and also with the object of quieting the child when it cried. Shortly afterwards the old lady presented the initial lesion of the disease which was located on the inner dorsal border of the base of the terminal phalanx of the index finger of the right hand. The course of medication in her case was practised for over a year, during which time she presented the ordinary symptoms of the secondary stage, but in addition thereto she suffered from deafness and passed through two attacks of syphilitic iritis. Dr. Kolipinski's second case was that of a young pregnant woman who was treated for a chancre situated on the outer border of the left labium majus. Later the symptoms of secondary syphilis appeared—falling of the hair and eyebrows, roseola, and so on. Her pregnancy terminated with the birth of a syphilitic infant and the death of the mother later from puerperal septicæmia. The infant was taken under the care of the paternal grandmother. Three months later she had a chancre on the palmar extremity of the right ring finger and in course of time the symptoms of the second stage presented themselves and caused her to seek treatment. The infant died in its sixth month from syphilitic meningitis.

ARE NICOTINE PREPARATIONS POISONS WITHIN THE MEANING OF THE PHARMACY ACT?

AN important case bearing upon the construction of the Poisons Clause of the Pharmacy Act was tried before the Lord Mayor at the Mansion House last week. It appears that a mixture intended for destroying insect life on plants by vaporisation proved to contain, according to Dr. Stevenson, 37·3 per cent of nicotine, 44·5 per cent. of camphor, and 15·1 per cent. of alcohol, the balance being water. It was urged that this preparation of nicotine was not within the schedule of the Pharmacy Act, because the Act made a distinction between certain poisons. In regard to some poisons, not only the poisons themselves but their preparations were included in the schedule, but in the case of nicotine its preparations were apparently not included in the schedule. The mixture was sold to a person unknown to the seller and no entry was made of the date of the sale or of the name or address of the purchaser in accordance with the requirements of the Pharmacy Act. The Lord Mayor was quite satisfied that this mixture was a poison within the meaning of the schedule and a penalty and costs were imposed. The Lord Mayor, however, agreed to state a case, so that for the present we refrain from comment upon the case for obvious reasons.

CEREBRAL COMPLICATIONS IN WHOOPING-COUGH.

TWO important recent communications have been made on this subject by Schreiber and Horveno. In a recent number of the *Archiv für Kinderheilkunde* (Band 26, 1899) E. Schreiber reports a case which calls attention to the very serious cerebral complications which may develop in whooping-cough. The patient, a girl, aged two years, was the subject of whooping-cough, and during one of the paroxysmal attacks she developed general convulsions. These convulsions recurred on the following day and again on the fourth day. Immediately after this there appeared paralysis of the legs and arms, a loss of the faculty of speech utterance (aphemia of Bastian), and unilateral facial palsy of the right side. Paralysis of the sphincters with involuntary passage of urine and fæces next followed. The temperature rose to 103° F. and continued thus for two days. After the twelfth day the convulsive attacks ceased and speech and muscular power began gradually to return at the close of the third week of illness, recovery thereafter being slow and steady. The diagnosis made in this instance was meningeal hæmorrhage, as against cerebral meningitis, which was the illness at first suspected. Horveno, in a very careful and complete series of studies on the various paralyses which occur in whooping-cough,[1] found that the cerebral paralyses were the most frequent, being met with in 37 out of 46 cases (or 80 per cent.). The rarer paralyses were those of bulbar, spinal, or peripheral nature. The clinical forms of the cerebral mischief resembled sometimes such conditions as coma or apoplexy (Cazin), but in other cases were decidedly like hemiplegia (Henoch). Less frequently the resulting troubles were facial palsy, aphemia, word-blindness, and hemianopsia. Horveno traces the causation to one of two factors—viz., toxæmia or strain and rupture of the cerebral blood-vessels.

RECENT CRIMINAL TRIALS.

AMONG a large number of criminal trials recorded during the past few weeks at various assizes, two which call for brief comment took place at Leicester. In the one a man was found guilty of manslaughter in the following circumstances. He had violently assaulted his wife shortly before her confinement with the result that though she was not seriously hurt and the child was born alive at the full term it succumbed shortly after birth to the injuries it had received when in the womb. It is perhaps not realised by everyone that although there can be no murder or manslaughter of a child that has never had separate existence from its mother through being born alive—of a fœtus, that is, so injured as to be stillborn—yet if once it has satisfied the conditions laid down by the law as constituting separate existence its death lies at the door of whoever caused it, and he can, if the other evidence justifies it, be tried and hanged for murder. Some doubt as to this seems to have at one time existed in the minds of judges and legal writers, of whom Sir Matthew Hale bases his view on the difficulty in such a case of proving the cause of death as a fact. This difficulty would not, of course, prevail nowadays to anything like the same extent, nor should it in principle affect the question, and two decisions during the present century (in 1828 and 1848) have settled the point and have never been questioned. One of them was given in the case of an abortionist, and criminals of this class will do well to remember that even though they may fail in their original object and may also avoid killing or injuring the mother it is still possible that they may so fatally injure the offspring as to earn the capital penalty. It need, however, hardly be said that a trial for homicide committed in this particular way is extremely rare. In the other case referred to a man, usually of quiet disposition but who, according to the evidence, was affected by a very small quantity of liquor, had cut the throat of his wife during an attack of delirium tremens from which he had since recovered. The jury found a perfectly legal verdict. The man was indicted for wounding with intent to murder and they found him guilty, but added that at the time when he committed the act he was insane. The judge passed the only sentence in his power, that the prisoner should be detained during Her Majesty's pleasure, adding, to satisfy presumably those who know that this usually means life-long incarceration in Broadmoor, that he would take steps or make representations in order that the incarceration might not be a long one. Cases such as this seem to be but

[1] Thèse de Paris, 1899.

inadequately provided for. A verdict that an insane man has done an act with a felonious "intent" seems like a contradiction in terms, and a man who has recovered from an attack of insanity which may never recur is hardly a fitting inmate for a lunatic asylum. At the same time he may, if at liberty, bring on again the delirium tremens from which he has already suffered, while he is not a proper subject for restraint as a habitual drunkard, nor can he be confined as an ordinary criminal.

THE PATHOLOGICAL DEPARTMENT OF WESTMINSTER HOSPITAL.

AT Westminster Hospital the governors are taking steps to place the pathological department on a footing conformable with the modern advances of that branch of scientific medicine. A clinical laboratory is being constructed which will be in working order early in the new year and the governors are sparing no expense to render it thoroughly efficient. At the same time it is recognised that the superintendent of the laboratory should be a professed pathologist and not a physician or surgeon in practice. In requiring that the holder of the office should be a professed pathologist the governors have taken a step which has been shown to work admirably in the case of the Johns Hopkins Hospital at Baltimore, to cite the most notable example. Dr. Lazarus-Barlow has been elected to fill the office thus created and since he has already had over seven years' experience in pathology, as Demonstrator of Pathology at Cambridge University and Curator of the Museum and Demonstrator of Morbid Anatomy at St. George's Hospital, his appointment will doubtless justify the expectations of the governors with regard to their course of action.

THE annual general meeting of the constituents of the Metropolitan Hospital Sunday Fund will be held at the Mansion House, London, E.C., on Wednesday, Dec. 13th, at 3 P.M. The business before the meeting will be: 1. To receive the report of the Council for the year 1899. 2. To elect the Council for the year 1900. 3. To determine the date of the next Hospital Sunday. 4. To transact annual general business.

MR. GEORGE BROWN writes: "In order to prevent misunderstanding I will thank you to permit me to state through your columns that I have resigned all connexion with the editorial department of the *Medical Times and Hospital Gazette*, which journal I founded in 1872 under the title of the *Students' Journal and Hospital Gazette*."

T.R.H. THE PRINCE AND PRINCESS OF WALES will receive the presidents and lady presidents of the League of Mercy at Marlborough House on Monday, Dec. 18th, at 12 o'clock noon.

WE understand that an increase in small-pox was reported at Hull early in the week, there having been 20 cases up to noon on Tuesday last.

UNIVERSITY OF CAMBRIDGE.—In the department of anatomy Mr. Kempson of Caius has been re-appointed a demonstrator for one year and Dr. Elliot-Smith, Fellow of St. John's, has been appointed a demonstrator for five years. A congress on tuberculosis is being arranged for 1901 and the Master of Downing College, the Regius Professor, Professor Sims Woodhead, and Dr. Sladen have been appointed representatives of the University at the preliminary meeting for its organisation. Dr. D. MacAlister and Professor Sims Woodhead have been appointed members of the State Medicine Syndicate and Mr. F. Deighton of Peterhouse has been appointed a member of the Special Board for Medicine.

THE REPORT OF

THE LANCET Analytical Sanitary Commission ON AMERICAN CIGARETTES.

WE return once more to the subject of tobacco. The history of the work of THE LANCET Analytical Sanitary Commission on this subject dates back as far as 1853 when a report appeared on "Tobacco and its Adulterations" in THE LANCET of July 30th. This report, we believe, was one of the first published contributions on the chemistry of tobacco and had reference to the use of foreign leaf in cigars, as well as to the normal composition of manufactured and unmanufactured tobacco. The report, which extended over several numbers of THE LANCET, was concluded in the issue of Dec. 10th, 1853, and contained an enormous number of figures based on the analytical results of a great number of samples of tobacco and cigars purchased in shops in London. Certain forms of adulteration were brought to light but there was no evidence to show that the adulteration was of a kind likely to produce injury to health.

Since that date the cigarette has been introduced into every-day life and at the present time the consumption of cigarettes is enormous. In 1888 a rumour gained currency that cigarettes contained a large proportion of opium and "an unclassified alkaloid," and, further, that the paper contained arsenic, copper, or chlorine. The subject was obviously of great public interest, and THE LANCET Analytical Sanitary Commission was appointed in 1888 to make inquiry on these heads, with the result that we were able to say in THE LANCET of Oct. 20th, 1888, that there was no trace of opium or any "unclassified alkaloid" in the tobacco, not a trace of chlorine or arsenic in the paper, but that there was a faint trace of copper due to the metallic lettering on the paper wrapper. The indictment to which we have referred nevertheless gained ground and eventually, about the year 1891, disturbed the minds of many people in the United States where a large proportion of the tobacco supply of the world is produced. This ultimately led to a very remarkable movement against the use of the cigarette, which seems to show no signs of abatement at the present time in the States. The tactics adopted by the leaders of this movement are decidedly odd and, to put it mildly, somewhat illogical. Apparently an endeavour has been made to prove that cigarette smoking is responsible for the high lunacy returns, the ranks of the insane and criminal classes being, it is alleged, recruited from the boys who have been cigarette smokers.

So energetically was this statement put forward and with such credulity was it received, that we find in the press of New York such amusing headings as the following:—

CIGARETTES MADE HIM A LUNATIC.—A BRIGHT SCHOOLBOY BECOMES A CHATTERING BEGGAR FROM THEIR USE.—MADE MAD BY SMOKING. DANCED, RAVED, AND PRAYED. STRAPPED TO STRETCHER, THE YOUNG TAILOR WAS CARRIED SINGING TO INSANE WARD.—CIGARETTES CLAIM A VICTIM. BEGAN SMOKING THE WEED WHEN BUT A LAD IN SCHOOL, WHICH BROUGHT HIS LIFE TO AN END BEFORE HE WAS 21 AND PRODUCED A LARGE TUMOUR ON THE BRAIN AND PARALYSED BOTH LOWER LIMBS.—PUFFED OUT LIFE BY CIGARETTES. THE COLLAPSE CAME YESTERDAY AND DEATH FOLLOWED QUICKLY EARLY THIS MORNING.

We could quote a number of similar excerpts. It remains to add that on investigation being made there was no foundation for the statement that death was due to cigarette smoking. In each case it was made perfectly clear that the cause of death had no relation to smoking at all. The movement then directed its energies to the quality of the tobacco, and it was even declared that two boys in 1891 had died in Milwaukee from excessive cigarette smoking and that an examination of the contents of their stomachs after

ANALYSIS OF CIGARETTES PURCHASED IN NEW YORK, U.S.A., AND IN LONDON.

Description.	1 Weight in grains of tobacco in one cigarette.	2 Weight in grains of paper in one cigarette.	3 Amount per cent. of mineral matter in paper.	4 Ratio of paper (=1) to tobacco.	5 Amount per cent. of nicotine in the tobacco (undried).	6 Amount per cent. of moisture in tobacco.	7 Amount per cent. of mineral matter in tobacco.	8 Alkalinity of ash reckoned as K_2O per cent.	9 Percentage amount of chlorine in ash.	10 Saccharine matters reckoned as grains of glucose in one cigarette.	11 Bodies like glycerine yielding oxalic acid on oxidation—grains in one cigarette.	12 Test for opium principles in (a) paper; (b) tobacco.	13 Test for phosphorus in (a) paper; (b) tobacco.	14 Test for arsenic in (a) paper; (b) tobacco.	15 Test for mercury in (a) paper; (b) tobacco.	16 Test for copper in (a) paper; (b) tobacco.	17 Test for other heavy metals in (a) paper; (b) tobacco.
PURCHASED IN NEW YORK.																	
1. "Duke's Cameo" (a)	16·51	0·66	1·67	1 : 25	0·95	10·67	11·99	1·62	5·00	1·54	2·31	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) + (b) —	(a) — (b) —
2. " " (b)	17·91	0·64	6·04	1 : 28	0·84	13·33	11·09	6·42	4·64	1·69	2·93	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) + (b) —	(a) — (b) —
3. "Richmond Straight Cut" (a) ...	18·99	0·70	1·74	1 : 27	1·19	9·47	11·70	1·35	5·54	2·00	2·93	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) + (b) —	(a) — (b) —
4. " " " (b) ...	19·87	0·54	2·68	1 : 27	0·63	12·07	11·14	2·02	7·82	2·47	2·47	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) + (b) —	(a) — (b) —
5. "Sweet Caporal" (a)	17·28	0·68	2·02	1 : 25	0·90	11·67	11·88	2·47	6·91	1·54	2·93	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) + (b) —	(a) — (b) —
6. " " (b)	16·60	0·62	3·00	1 : 27	1·06	11·95	12·13	5·40	7·22	2·00	2·62	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) + (b) —	(a) — (b) —
7. "Perfection"	21·67	0·56	3·31	1 : 38	1·03	11·60	12·78	3·97	7·61	1·65	3·64	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) + (b) —	(a) — (b) —
8. MEAN RESULTS	**17·83**	**0·63**	**2·98**	**1 : 27**	**0·94**	**11·53**	**11·81**	**3·32**	**6·30**	**1·87**	**2·82**	—	—	—	—	—	—
PURCHASED IN LONDON.																	
9. "Old Gold"...	15·41	0·60	2·30	1 : 25	1·03	10·06	14·06	4·48	6·50	1·23	1·85	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) + (b) —	(a) — (b) —
10. "Duke's Cameo"	17·29	0·61	1·49	1 : 28	1·30	12·20	12·30	4·97	3·40	1·54	1·08	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) + (b) —	(a) — (b) —
11. "Richmond Straight Cut"	18·51	0·70	1·74	1 : 26	0·94	14·80	11·70	3·14	7·12	3·65	2·62	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) + (b) —	(a) — (b) —
12. "Kinney's Straight Cut"	18·74	0·66	2·08	1 : 28	0·91	11·80	11·73	2·16	6·83	2·77	2·47	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) + (b) —	(a) — (b) —
13. "Sweet Caporal"	14·84	0·61	8·75	1 : 24	1·10	17·33	14·26	3·06	6·46	2·62	2·62	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) + (b) —	(a) — (b) —
14. "Richmond Gem"	19·28	0·64	2·90	1 : 30	1·05	16·25	13·82	2·17	7·00	1·54	2·16	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) — (b) —	(a) + (b) —	(a) — (b) —
15. MEAN RESULTS	**17·34**	**0·63**	**3·21**	**1 : 27**	**1·05**	**13·82**	**13·00**	**3·33**	**6·21**	**2·24**	**2·13**	—	—	—	—	—	—

— means negative result. + means positive result.

death revealed the presence of phosphorus. It was telegraphed that death was caused by this substance combined with nicotine and an arsenical solution used in the paper wrappers. This on the face of it is highly improbable and evinces also an ignorance of the facts connected with the nature and character of tobacco smoke as drawn from a cigarette.

But absurd statements of this kind continue to be made in the United States and the subject has appealed to us (though a similar agitation has not yet arisen on any scale in this country) as one of general public interest and one which merits inquiry. It should be stated, however, that some of the brands of cigarettes sold in New York may be obtained in this country. We therefore referred the subject to our New York correspondent, who informed us that there was a movement in New York of the kind which we have described, basing its indictment largely upon the averred presence of poisonous materials in the cigarette, without having regard to the question of the injury to health which may result from excessive or juvenile smoking. Acting under our instructions our correspondent secured various brands of cigarettes in shops in New York City and despatched them to THE LANCET Laboratory for examination and analysis. At the same time our Commissioners purchased cigarettes of American manufacture at shops in London bearing in the majority of instances the same brands. The results which have recently been obtained in THE LANCET Laboratory are printed in the accompanying table.

It will be apparent from this table that if any reproach exists at all it will be evident in the case of both the cigarettes purchased in New York and the same brands of cigarettes sold in London. As a matter of fact the results in both cases show no foundation whatever for the exaggerated statements that have been made. Foreign toxic substances were not found in a single instance, and amongst those looked for, both in the paper wrapper and in the tobacco, were morphia, phosphorus, arsenic, mercury, copper, and other heavy metals. The only evidence of a metal being present was, as appears in the table, in the case of copper in the paper. This metal, however, was just barely indicated and having regard to the extreme delicacy of the chemical test for copper the quantity present must be so excessively minute as to put any question of its being injurious beyond consideration.

Apart from the fact that our examination shows that the allegations in regard to the presence of foreign poisonous materials in cigarettes are entirely unfounded, the figures recording the composition of tobacco and the ratio of tobacco to paper in the cigarette are of interest. It is interesting also to compare the figures with respect to the cigarettes purchased in New York and those purchased in London. The results with but few and trifling exceptions are concordant. Thus the average weight of the cigarette bought in New York was 17·83 grains and of that purchased in London 17·34 grains. The weight of paper was the same in both cases—viz., 0·63 grain; the percentage of mineral matter in paper was 2·98 and 3·21; the ratio of weight of paper to tobacco as 1 to 27 in New York and the same ratio in London. The percentage of nicotine in the New York cigarettes was 0·94; in the London cigarettes it was 1·05. The percentage of moisture in the New York cigarettes was 11·53 and in the London cigarettes 13·82. The percentage amount of mineral matter in tobacco from New York cigarettes was 11·81 and in London cigarettes 13·00. The alkalinity of the ash reckoned as potash in 100 parts was in New York cigarettes 3·32 and in London cigarettes 3·33. The percentage amount of combined chlorine in the ash was in the case of New York cigarettes 6·39 and in the case of London cigarettes 6·21. The average amount of saccharine matters reckoned as glucose in one cigarette was in the case of New York 1·87 grains and in the case of London 2·26 grains. (There is an increased amount here in the London cigarette which we shall shortly discuss.) Column 11 relates to glycerine-like bodies which yield, on oxidation with alkaline permanganate, oxalic acid. In the case of New York cigarettes the average result was 2·82 grains calculated as glycerine and in that of the London cigarette 2·13 grains. There is here estimated on the average a slight increase in the New York cigarette.

It is true that tobacco normally contains certain organic bodies, sticky substances, which behave like sugar, but it is also true that glucose or saccharine matter is sometimes added to tobacco for a practical purpose. This is proved by the fact that the cold water decoction of some cigarettes yields a perfectly definite crystalline precipitate of glucosazone with phenylhydrazine. The addition is harmless. It would appear that the American cigarettes purchased in London contained a slightly increased amount of saccharine matters. The reverse is the case in regard to glycerine, although it is not easy to assert with absolute confidence that glycerine is added at all on account of the difficulty attending its detection. Still, apart altogether from saccharine matters certain cigarettes do yield a body which readily oxidises into oxalic acid and this is fair presumptive evidence of the presence of glycerine. The addition of glycerine in trifling amounts is at any rate recognised by the trade. We are of opinion that neither glycerine nor glucose in the extremely limited amounts shown in our analyses is in the smallest degree injurious.

To sum up, there is not a single factor in these numerous results upon which can be fairly based any allegation of the presence of a substance producing injury to health. As to the question of injury to health which may easily result from the excessive or premature smoking of tobacco in any form, that is quite beside the issue, the present inquiry only having reference to the statement that these cigarettes were injurious because they contained foreign poisonous ingredients; as we have said, a very careful search failed to elicit the slightest evidence on this head. No one deprecates more than do we ourselves the appalling increase of the practice of smoking amongst juveniles, and if those who are so emphatically solicitous about the health of the young community would turn their attention to this aspect of the question with a view to the restriction of the objectionable habit undoubted good would be done. But to make manifestly exaggerated statements will not ultimately help the case one tittle, indeed it is more likely to aggravate the evil.

It is possible that cigarette smoking in particular is more injurious than any other form of smoking, but this in the majority of instances may be referred to the method rather than to the materials of the cigarette. As we have shown, the weight of paper is exceedingly small and the ash it yields but trifling, consisting entirely of carbonate of lime. In two instances, however (see Column 3, Cigarette Nos. 2 and 13), the amount of mineral matter is high, but this is due to the same perfectly innocuous mineral. It is worthy of note that the percentage amount of nicotine in the pure Virginia leaf invariably used in these cigarettes seldom exceeds, according to these analyses, 1 per cent. In other kinds of tobacco it may reach four times that amount. It is doubtful, however, whether any nicotine ever reaches the mouth of the smoker except that present in the moistened tobacco which is in contact with the lips. The smoke products of tobacco do not contain any important quantity of nicotine, the chief toxic bodies being related to that interesting series of organic bases known to chemists as pyridines.

There are not wanting those who maintain that British manufactured tobacco is not of the same quality and character as the raw imported leaf and that some manipulation with added substances is practised in the course of manufacture. We propose therefore to return on some future occasion and at some length to the question of the purity of modern tobacco and to the methods of its manufacture adopted in this country. At the same time we hope to further elucidate this subject by a series of comparative analyses undertaken by our Commissioners.

THE LANCET Laboratory.

THE ANNIVERSARY OF THE ROYAL SOCIETY.

ON the occasion of the anniversary meeting of the Royal Society, which was held on Nov. 30th (St. Andrew's Day), it was natural that Lord Lister should choose as the theme of his annual address the subject of preventive inoculation, because, as he said, while it is of supreme practical importance, it is in many directions of high scientific interest also. Indeed, his address was confined to a consideration of the interesting views and experience which Mr. Haffkine had brought before the Society at one of its "meetings for

discussion" in regard to the application of the system of preventive inoculation to the treatment of cholera, plague, and typhoid fever.

PREVENTIVE INOCULATION.

As was well known Mr. Haffkine, applying Pasteur's principles of the attenuation "*et renforcement des virus*," had succeeded in obtaining the microbe of cholera in two very different degrees of intensity—one so virulent as to produce when introduced in small quantity beneath the human skin the most inflammatory disturbance and even mortification at the seat of inoculation, and the other so mild as to cause extremely little reaction or inconvenience. This had been demonstrated by practical experiment and it remained to discover whether inoculation on these lines would prove applicable for the prevention of cholera. In treatment by inoculation either antitoxic immunity or anti-infective immunity might be produced, for if instead of the toxin the bodies of the microbes themselves were administered to an animal it acquired a wonderful power of repelling the assaults of that particular kind of organism which was thus rendered incapable of obtaining a footing among the tissues of the creature. Thus there was a distinction between antitoxic and anti-infective forms of immunity. An animal might be brought to a very high degree of protection against the attacks of a microbe and yet remain perfectly susceptible to the poisonous action of its toxin. In the treatment of cholera, which was essentially a toxic disease, Mr. Haffkine adopted the anti-infective inoculation, and not the antitoxic, with remarkable success. This success permitted the following explanation. It appeared to be established that the cholera bacillus invariably attacked the mucous membrane of the intestinal canal. If it were admitted therefore that this was always the primary site of its invasion it could be easily understood that the anti-infective inoculation by securely protecting the mucous membrane against the invasion of the microbe might prevent it from ever developing in the body and from ever producing its deadly toxin.

The case was somewhat different in regard to plague, for it was a happy circumstance that the life of the plague bacillus was not essential to its efficacy for producing anti-infective immunity. Cultures of the microbes could thus be used for anti-infective inoculation after being subjected to a high temperature—high enough to ensure their death and to prevent the possibility of communicating the disease with them. Mr. Haffkine had noticed in his cholera statistics that among the comparatively few persons who were attacked in spite of inoculation the disease was as fatal as in the uninoculated, that was, while the absolute mortality was immensely reduced by the inoculations the case mortality was unaffected by them. This he attributed to the purely anti-infectious character of his cholera inoculation, and it occurred to him that if he could combine in the case of plague the antitoxic with the anti-infective element he might not only diminish the number of attacks of the disease, but also render them less deadly when they did occur by robbing the plague toxin of its powerful mischief. He therefore obtained strong cultures of toxin by allowing growth to proceed for five or six weeks. The treatment was followed with striking success, the result having been to show incontestibly that the case mortality in the inoculated was less by 50 per cent. than that in the uninoculated. The number of attacks was also diminished by inoculation and there was every reason for believing that this system of preventive inoculation was, under proper management, capable of reducing the mortality in a plague-stricken district by between 80 and 90 per cent.

Mr. Haffkine had expressed the hope that the protective method might also answer with typhoid fever and Professor Wright of Netley had developed a method of procedure which appeared full of promise. Preliminary trials had proved so satisfactory that our army authorities had seen their way to recommending the system to our soldiers going out to South Africa. How long the protection caused by these inoculations will last was at present, said Lord Lister, somewhat uncertain. It would no doubt differ in its duration in different diseases. In the case of cholera it appeared from Mr. Haffkine's results that it continued for upwards of a year. In plague as far as could be judged hitherto it would also seem to last for at least a twelvemonth. With typhoid fever there were not yet materials for forming an estimate.

THE ROYAL SOCIETY MEDALS.

After the delivery of his interesting address Lord Lister proceeded to present the Royal Society Medals as follows: the Copley Medal to Lord Rayleigh, "for his splendid services to physics"; the Royal Medal to Professor G. F. Fitzgerald, F.R.S., "for his brilliant contributions to physics"; a second Royal Medal to Professor William Carmichael McIntosh, F.R.S., "for his very important labours as a zoologist"; to Edward Schunck, F.R.S., the Davy Medal "for researches of very high importance in organic chemistry." The President referred to the great losses by death which the Royal Society had sustained during the past year. The list contained a number of very distinguished names including Sir William Jenner, Lord Herschel, Sir William Roberts, Sir Edward Frankland, Dr. Henry Hicks, and Robert Bunsen.

THE ANNUAL DINNER.

In the evening Lord Lister presided at a dinner at the Hotel Métropole when a large number of distinguished persons, representing science in every one of its branches, were present. The medical profession was ably represented. One of the most interesting speeches was that made by the Chinese Minister, who responded to the toast of "The Guests," proposed by Dr. T. E. Thorpe who had been appointed foreign secretary to the society at the meeting in the afternoon.

DEATH CERTIFICATION AND REGISTRATION.

(*Concluded from p. 1543.*)

LET us now consider briefly those recommendations of the Select Committee which refer specially to the subject of these articles. Nos. 1 and 2 may be taken together. The first is that no death should be registered without production of a certificate of the cause of death signed by a registered medical practitioner or by a coroner after inquest, or in Scotland by a Procurator Fiscal. The second is that in each sanitary district a registered medical practitioner should be appointed as public medical certifier of the cause of death in cases in which a certificate from a medical practitioner in attendance is not forthcoming. The words "after inquest" are significant: they would imply a desire on the part of the committee to limit coroners' certificates to such cases as were the subjects of inquest held by them and to dispense with those informal inquiries which are now made by coroners, in which they certify to the registrar that they do not consider an inquest necessary and give what they consider to be the probable cause of death. The Registrar-General for England and Wales classed these as uncertified deaths; notwithstanding which the proportion of uncertified to total deaths registered in England and Wales was, when the committee sat in 1892, only 2·7 per cent. In Ireland the figures as to deaths certified and uncertified could not then be given, but it appeared that in the previous year (1891) the number of deaths registered where the causes were unspecified or ill-defined was 5803 out of a total of 85,999 or 6·7 per cent. In Scotland a great decrease of uncertified deaths had taken place, but the ratio was still higher than in England, being 5·8 per cent. Dealing for the present with England and Wales it is gratifying to see that the proportion of uncertified deaths is so small. But it is most desirable that the true cause of every death should be known and that this should be certified as accurately as possible. The deaths certified to by medical practitioners amount to over 91 per cent.; those certified to by coroners after inquest are between 5 and 6 per cent., leaving only the small proportion we have seen as uncertified. But though the proportion is small the number for 1897 reached a total as high as 9859, and although some of these were subsequently certified to by medical practitioners, while informal inquiries were made by coroners in 9859 cases, these cannot be regarded as certified deaths. To meet these uncertified deaths the committee suggested the appointment of a medical certifier in each sanitary district. No doubt there is much to be said in favour of such appointment. At the risk, however, of appearing ungracious we must show the difficulties in the way of making such appointments and the objections to them. We have seen that the Registration Act, 1874, provides fairly well for the certification and registration of all deaths certified to by a medical practitioner.

It also provides for the registration of all deaths certified to by coroners "after inquest." The Coroners Act of 1887 (passed 13 years later) deals with all violent and unnatural deaths, sudden deaths the cause of which is unknown, deaths in prison, &c. In other words the two Acts of Parliament provide for the registration and certification of every death whether by medical practitioners or coroners; and it is a grave question whether the body of any person of whose death no certificate is forthcoming is not *primâ facie* the property of the coroner. In suggesting "medical certifiers" the committee proposed what may be called a third department, the harmonious working of which, between the coroner on the one hand and on the other the deceased's relatives and the medical attendant who has refused a certificate, would be, to say the least, very doubtful. And at the present time when it is impossible to procure remuneration for medical certificates of the cause of death or adequate payment for medical witnesses in courts of law, how are "medical certifiers" to be paid for such delicate and difficult duties? In these warlike days there comes to mind the remark made by the late Mr. Pitt when it was proposed that the Government should pay £15,000 for the Hunterian Museum. "£15,000 for doctors' bottles; why, we want the money for gunpowder." What is really required is such an amendment of the Registration Act, 1874, as shall bring it in harmony with the Coroners Act of 1887. Medical practitioners ought also to be more fully protected in refusing to give a certificate of death when it is their duty to do so, since this often means much actual annoyance and probably also pecuniary loss. The wording of the present Act (Sect. 20, Subsect. 2) is too absolute. It has been seriously contended that a practitioner has no right to refuse a certificate in any case which he may have attended, a refusal being only ambiguously implied in Section 39, the penalty section. Let an additional subsection be added to Section 20 requiring every medical attendant to send notice to the coroner of any violent or unnatural death or of any death with regard to which he does not feel justified in giving a certificate of its cause. This would remove a most serious defect from the present Act.

Again, the Coroners Act requires modifications. Inquests are held in many cases where an adaptation of the fiscal inquiry of Scotland is preferable. Bitter complaints are made by those who are liable to serve on a coroner's jury and especially when it is a mere needless formality as in a death from natural causes, or a solemn farce, as too many inquests have been in the past and are still. It is not desirable that coroners should hold an inquest on every case referred to them, but it is requisite that every inquest and every informal inquiry should be thorough and complete. This can only be effected by securing competent medical evidence with post-mortem examination whenever these are called for. Coroners ought to have power to demand medical assistance in order to see if an inquest is necessary and to remunerate the medical practitioner employed when the death has been proved to be a natural one and an inquest has been found unnecessary. Of the uncertified deaths referred to coroners many are those of newly-born infants whose mothers have been attended by midwives or "handy women," death being the result of premature birth, malformation, or other natural cause. Others, again, are those of old men and women, dying more or less suddenly from syncope as the secondary cause of death, the primary cause being senile decay. Other cases might be cited, but these are given as examples where coroners might reasonably make informal inquiries, and, aided by medical evidence given by an inspection, external and internal if necessary, could certify to the registrar the exact cause of death, and that an inquest was unnecessary. Were this done throughout the whole of England and Wales a near approach would be made to as perfect a system of certification and registration of the cause of death as is humanly possible.

The third recommendation of the Commons' Committee was that the medical attendant before giving a certificate of death should be required to inspect the body personally, provision being made for this being done by two neighbours if distance or other sufficient reason rendered the medical attendant unable to make this inspection himself. It has always seemed to us a most objectionable feature of the medical certificate that it made the medical attendant certify to the fact of death without requiring him to verify this by an inspection of the body. There are few practitioners who have not seen persons almost moribund who have recovered and lived long after. The late Mr. Justice Mellor tried a case more than 30 years ago in which certificates of death were given of two persons who were living witnesses at the trial. When told that it was the usual course for medical men to give a certificate on being informed of the death the learned judge remarked that "the sooner medical men made it an unusual course the better." One of the medical witnesses before the committee detailed a case in which he had seen a certificate of death given of a man who lived four days after the date on which he was said to have died! It is refreshing to notice against such flagrant cases the cautious conduct of the Scotch surgeon in Max O'Rell's "L'Ami Macdonald." The surgeon had told a young farmer that his father would probably not live the day, and the son suggested that such being the case perhaps the doctor would give him the certificate then to save him the trouble of another journey! But the surgeon maintained that he could not sign the certificate of death of a man who was still alive.

For verifying the body and giving a certificate the committee recommend that a fee of 2*s*. 6*d*. should be given. Even this would mean in the aggregate an expenditure of at least £50,000, which would be liable to increase in times of epidemics. For reasons already indicated it is most improbable that the present or any future Government would consent to any such outlay. But some modification may be adopted. A large proportion of the deaths in England and Wales take place in public institutions, hospitals, infirmaries, lunatic asylums, charitable institutions, workhouses, &c. A more moderate fee would add to the salary of the resident medical officer, while the identification of the body of a patient who has died in the institution could not occupy more than a few minutes. In the case of a private patient a visit would have to be paid to the house where the death occurred, which in many cases would occupy much time, requiring it may be a special journey. Some practitioners make a charge for giving certificates of death, and this was sanctioned many years ago by the late Major Graham, Registrar-General, in one of his annual reports, though in a somewhat ungracious manner. Under our present system the certificate is necessary to the survivors of a deceased person, since without it they cannot secure either burial or cremation of the body. But the certificate is of value to the Government, since every certificate is a unit of the valuable death statistics contained in the Registrar-General's annual reports. If the verification of death is to be compulsory on the medical attendant it seems only reasonable that he should make the usual charge for a visit. In the case of paupers or dispensary patients visited at their own homes the verification might be remunerated by an increase of salary for the dispensary surgeon or parochial medical officer. The correct verification, certification, and registration of every death is not the duty of the State only, it is everybody's business. And especially does it concern all who as county or municipal councillors, managers of hospitals and other charitable institutions, and members of local government boards, employ medical practitioners.

It only remains now to notice the fourth and fifth recommendations: "That medical practitioners should be required to send certificates of death to the registrar instead of handing them to the representatives of the deceased" and "that a form of certificate of death should be prescribed, and that in giving a certificate medical practitioners should be required to use such form." With the latter every reasonable person must agree as being the essence of a uniform system. The forms have been altered so as to read "that I last saw him (or her) alive on ——." The books of forms are now numbered on the outside cover and on each certificate, while, as is now well known, the certifying practitioner's name is entered on the register and the certificate is preserved. It is greatly to be wished that all advanced students should be taught how to fill up death certificates before becoming qualified as it would save them from many a future difficulty. It is a most responsible duty and should not be regarded as a mere formality or perfunctory act. Above all, the medical certifier should take special care not to aid the murderer, and especially the poisoner, in his evil work, but to bring him to prompt justice.

While it would be very advantageous for some reasons for medical practitioners to send the certificate of death to the registrar, many of those whose duty it is to give certificates in town and country will see grave difficulties in the way, for so arbitrary are the boundaries of subdistricts that the

informant would probably go to one registrar, while the certificate went by post to another. It would impose an extra duty on medical attendants which they would not at all appreciate, while it would be a most irritating change in what has been the practice now for 60 years past. It is, however, very desirable that medical practitioners should fearlessly give the cause of death without being deterred by feelings of consideration for the feelings of the informant. It is most important *inter alia* that we should have accurate data as to the number of deaths due to syphilis with the varying ratios. It is also extremely desirable that certificates of death should not be handed about with the object of obtaining subscriptions for a "wake" or a burial. It should be enclosed by the medical attendant in an official envelope provided by the registrars of the subdistrict with a printed address, "The registrar of the subdistrict of ——," and should be fastened up and given to the informant for delivery to the registrar only.

In conclusion, it is much to be regretted that the Registrar-General still complains of so many defective certificates as well as of uncertified deaths. So long as it is compulsory on all medical practitioners to certify to all deaths attended by them the duty should be performed correctly seeing how important are accurate statistics. The General Medical Council does not show a disposition to regard with impunity any errors made wilfully by members of the profession. On the contrary it has rather shown a tendency to severity. It will be remembered that a surgeon who gave evidence on oath before one of the metropolitan coroners as to the details of a post-mortem examination which he had made was charged by the coroner with perjury, no post-mortem examination having been made. The magistrate who heard the case acted in a most extraordinary manner. He contended that it was a mere difference of opinion between the surgeon who had not made the post-mortem inspection and the surgeon who had done so, whereas it was not a question of opinion at all but one of fact. The one swore to facts of which he had obtained knowledge by his own eyesight; the other stated on oath that of which he had no knowledge. The magistrate dismissed the case, his manner to the coroner being most unbecoming, and it is to be regretted that he was not required by mandamus to re-hear the case. Justice was, however, done by the General Medical Council who found the offending surgeon guilty of infamous conduct in a professional aspect and no real defence was offered. All honest reforms in the ranks of the medical profession must take place from within rather than from without and especially where in giving a certificate of death or making a necropsy the whole responsibility rests on the medical practitioner.

THE WAR IN SOUTH AFRICA.

AT the moment of writing there is a dearth of war news and the military authorities are evidently imposing a severe silence on correspondents in regard to the movements in South Africa. An aching void of suspense meanwhile exists in the hearts of a good many people in this country, for there are few who have not either relatives or intimate friends or both engaged in the South African campaign. Many accounts of the late battle at Modder River have reached this country, but we must confess that they give a somewhat puzzling and confused description of what was the exact situation and of what actually took place on that occasion. The battle occurred at the junction of the Modder and Riet rivers, and the Boer generals showed a good deal of strategical acumen in having previously determined upon that as a site for opposing Lord Methuen's advance, for it is topographically considered an excellent and strong position for an entrenched force to have taken up. One thing is clear, namely, that there was some very severe fighting attended with heavy losses on both sides in this engagement. The Royal Army Medical Corps must have been working under terrible difficulties here and elsewhere in the field of war. The losses on our side at Modder River, although considerable no doubt, do not really when the total number of British troops (8000 let us say) present on that occasion is taken into account exceed 6 per cent. Although the fight was a severe and important one, these losses have been considerably exceeded during Wellington's Peninsular campaigns, in some of the battles of the American and those of the Franco-German wars, and apparently at Elands Laagte in the present South African campaign. But where particular battalions or detachments are concerned on which the stress of the fighting happened to fall the loss in these South African battles, as on many previous occasions elsewhere, has been heavy. A detachment of the Gordons, for example, at Elands Laagte, lost one-third of their number, and the casualties among a body of Marines in their assault at Gras Pan amounted to nearly 50 per cent. of their number, including almost all their officers. At Modder River we are not certain whether the whole battalion or only half a battalion of the Argyll and Sutherland Highlanders went into action, but that corps in either alternative suffered severely and disproportionately—in one case the casualties would be nearly 13 per cent. of an approximate strength of 900 and in the other (if only half a battalion were engaged) over 25 per cent. Those of our readers who may be desirous of going into the subject of the numbers of casualties that have occurred in different battles and other statistical data, together with a description of the different firearms and projectiles of foreign armies, will find this matter very amply discussed in "Longmore's Treatise on Gunshot Wounds," published in 1895, and in a Presidential Address read by Sir William Mac Cormac in the section of Surgery at the meeting of the British Medical Association in 1895.[1] Many estimates of a prophetical kind have been put forward from time to time as to the area of a fire zone which would be so swept under modern systems of warfare by the fire of troops equipped with arms of precision and rifled quick-firing artillery that no one would be left alive in it. We have, indeed, heard a military medical officer declare that scarcely a blade of grass even would be left upon the ground. Theoretically that may, no doubt, be true, and even as a matter of fact we do not yet know that it has been disproved for we have not ascertained all the conditions that were present in any given action. Still, it is astonishing what a very determined force will attempt for a time and "on the rush." The Boers do not appear to be such good rifle shots at long distances as they had the reputation of being; they usually reserve their fire for shorter ranges when they are very effective. There is, too, with the best and most determined troops in the world a certain nervous tension during a fight which interferes with perfect accuracy of aim. To look at the position held by the Boers on the Modder River it could conceivably have been made impregnable and defended by a concentrated fire from all arms such as no troops could successfully assault without disastrous loss of life. There is no doubt that the casualties sustained by some of our troops for relatively brief periods of time and short distances were very large in that fight. It is worthy of remark that the bayonet has not turned out to be the discarded weapon which many thought it would become. Our army medical officers have seen quite a number of bayonet wounds among the Boer wounded. The war in South Africa has shown that the difficulties of a campaign are not always to be measured so much by the size and importance of the military power engaged as by the advantageous conditions under which a numerically weak foe may be fighting, and this has been strikingly the case with the forces of the South African Republics. One of the most notable features of the campaign has been the splendid and effective work performed by the artillery on the part of the British army and navy, and it is a subject of regret that our troops were not more amply provided in this respect. The presence and transport of heavy guns on the part of the Boers must have been a matter of unpleasant surprise to British officers.

Before the battle of Belmont a complete hospital train had arrived at Orange River from Cape Town. It was designed by Colonel J. F. Supple, R.A.M.C., and was under the command of Captain C. C. Fleming of the same corps. This train proceeded to Belmont and brought back the wounded from the fight at Kaffirs Kop and on its return was met by Surgeon-General W. D. Wilson, P.M.O., of the 1st Army Corps. Sir William Mac Cormac had proceeded to Maritzburg and will presumably join the Head Quarters Staff of Sir Redvers Buller. As far as can be ascertained the wounded of the British forces are doing very well (some particulars from our Special Correspondent at Wynberg will be found in another column) and the general health of the troops is quite as satisfactory as could be expected. We know, however, but little so far of the medical history of the campaign and still less of the health conditions of

[1] THE LANCET, August 3rd, 1895, p. 290.

FIELD FORCE FOR SERVICE ABROAD.

Table Showing Officers, Royal Army Medical Corps, detailed for Regimental Units (a).

Unit.	Place of mobilisation.	Medical officer.	District of medical officer.
6TH INFANTRY DIVISION.			
12TH BRIGADE.			
2nd Bn. Bedfordshire Regiment.	Aldershot...	Major J. D. Day.	North-Western.
1st Bn. Royal Irish Regiment.	"	Major G. H. Thomas.	Woolwich.
2nd Bn. Worcestershire Regiment.	"	Lieutenant G. Stammers.	Aldershot.
2nd Bn. Wiltshire Regiment.	"	Major T. B. A. Tuckey.	Cork.
13TH BRIGADE.			
2nd Bn. East Kent Regiment.	Aldershot...	Major R. J. Geddes.	(b).
2nd Bn. Gloucestershire Regiment.	"	Captain J. D. Ferguson.	(b).
1st Bn. West Riding Regiment.	"	Captain G. S. McLoughlin.	(b).
1st Bn. Oxfordshire Light Infantry.	"	Major W. W. Pike.	Aldershot.
DIVISIONAL TROOPS.			
Brigade Division Staff, Royal Field Artillery (78th, 81st, and 82nd Batteries).	Aldershot...	Lieutenant J. G. Berue.	Cork.
Regimental Staff, Divisional Engineers (38th Field Company, R.E.).	Shorncliffe.	Captain C. O'C. Hodgens.	—

(a) The following unit, to which a medical officer is allotted in war establishments, will not have one detailed in the present instance:—Divisional Supply Column. The general officer concerned will make the necessary arrangements for its medical charge.
(b) To be specially detailed.

Table showing the Officers of the Royal Army Medical Corps detailed to Bearer Companies and Field Hospitals.

Unit.	Allotment in field force.	Names of officers.	Whence obtained.
		A.—BEARER COMPANIES.	
No. 10 Bearer Co.	12th Brigade	Major J. Fallon. Captain B. W. Longhurst (f). Lieutenant F. Ashe (a).	North-Eastern District (No. 8 Co.).
No. 16 Bearer Co.	13th Brigade	Major R. J. Fayle. Captain A. J. Chambers (a). Lieutenant M. M. Rattray (b).	Western District (No. 7 Co.).
		B.—FIELD HOSPITALS.	
8th Divisional Field Hospital.	12th Brigade	Major T. Daly. Major D. R. Hamilton (f). Lieutenant J. Matthews. Lieutenant W. M. McLoughlin. Quartermaster Hon. Lieutenant (g).	Southern District (No. 4 Co.), Netley.
2nd Corps Troops Field Hospital.	13th Brigade	Major F. R. Barker (e). Major R. E. Molesworth. Captain E. C. Anderson (f). Lieutenant P. S. O'Reilly (d). Quartermaster Hon. Lieutenant.	Home District (No. 18 Co.).
3rd Divisional Field Hospital.	Divisional Troops, 6th Division.	Major R. W. Ford. Major T. Du B. Whaite (h). Lieutenant E. W. Siberry (d). Lieutenant B. F. Wingate (d). Quartermaster Hon. Lieutenant (g).	Southern District (No. 6 Co.), Portsmouth.

(a) From Aldershot. (b) From Eastern District. (d) From Netley (e) From South-Eastern District. (f) To be specially detailed. (g) Will join the unit in South Africa. (h) From Dublin District.

the Boer Government forces. It is confidently stated that the army besieging Ladysmith is in a somewhat sorry plight owing to the prevalence of camp diseases—fever, dysentery, and other maladies incidential to exposure, insufficient or bad food, and fatiguing duties. We do not think that any reliance, however, can be placed upon these statements about the Boers. The work of the ambulance and bearer companies during the fight at Modder River became almost impossible owing to the sustained fire. Very plucky attempts were made to afford prompt aid to the wounded and to carry them off the field. As soon as the firing had mitigated and the Boers showed signs of having had enough of it the battlefield was stripped of its wounded. We regret to notice a repetition of protests (some of them official) against the Boer troops for violation of the Geneva Convention, but we must make every allowance for exaggeration, inadvertence, and mistakes in warfare. Lord Methuen's force has so far in seven days marched 53 miles and fought three actions besides skirmishes. We do not know exactly where he now is, but he probably has 20 miles to go yet before he can reach Kimberley. The besieged garrison still holds out at Mafeking but must be hard pressed. The garrison was reported to be healthy but the time of their relief seems very uncertain unless the Boers raise the siege in order to re-inforce other commands elsewhere. All eyes are now turned to Sir Redvers Buller and his strategical plans and to the force under Sir Francis Clery for the relief of Ladysmith. Once that has been effected and a decisive blow can be delivered against the Boer forces in Natal by the three British columns being brought into some sort of coöperation, the invasion of the Transvaal towards Pretoria and a march to Bloemfontein can be begun in earnest.

We print in the preceding column the complete details of the medical arrangements for the Sixth Division. Lieutenant-Colonel W. L. Gubbins, R.A.M.C., has been appointed principal medical officer, and Major B. M. Skinner, R.A.M.C., medical officer.

THE DEATH OF DR. STARK.

Although Ladysmith has been subjected to a vigorous bombardment for some weeks but very few casualties have occurred. One, however, of special interest to the medical profession was that which occurred to Dr. Stark, who was killed by a shell as he came out of an hotel. The following reminiscences of Dr. Stark have been sent to us by a well-known member of the profession in London, whose brother has long been resident in Natal and knew Dr. Stark well: "The Dr. Stark, whose tragic death at Ladysmith you will have noticed, was an intimate and esteemed friend of mine. He was a naturalist of repute. He introduced himself to us at Boschfontein some five years ago, having heard of G.'s reputation as a local collector. He expressed a strong wish to explore the Drakensberg Range and asked our advice as to ways and means. Eventually we agreed to take him for a consideration, we finding waggon, oxen, servants, horses, tent, and food. We three went and had a most enjoyable time. They ornithologised and I sketched. I found him a congenial man. I believe he leaves two grown-up daughters in London who were educated at Girton. It appears that he had attached himself (being in Natal) to the Ladysmith medical staff. Coming out of his hotel he had both legs taken off by a shell. 'Take care of my cat,' he said, and died almost immediately. I have felt his death very much as that of an intimate friend."

(FROM OUR SPECIAL CORRESPONDENT.)

Our last sick and wounded convoy from Ladysmith, which was brought down by the *Sumatra* and sent on here from Cape Town, numbered 205. Amongst the wounded were 15 officers, who were speedily comfortably settled in the luxurious hospital told off for them.

The great majority of the cases were, of course, surgical and the result of Mauser bullets, but a few amongst them were Martini-Henry bullet wounds and the difference was extremely marked. The Mauser bullet, as I stated in my last letter, does not inflict so severe a wound as the Lee-Metford and its crushing power is distinctly less. In most of the cases it was very difficult to determine the aperture of entry and that of exit from the appearance of the wound, both apertures in nearly all cases being of identical size. Of course, I am referring to wounds of a fleshy nature, where the bullet had traversed muscular structures only. In the case of perforation, grooving, or tunnelling of bones the aperture of exit was much enlarged and no difficulty existed.

in determining the direction taken by the bullet as far as entry and exit were concerned.

It is simply surprising to note how quickly and readily these wounds heal. In a great number of the cases the ordinary field dressing is quite sufficient to bring about complete healing, and the small calibre of the rifle and the consequent size of the bullet tell most favourably on the liability of the tract to be plugged with foreign bodies; in fact, instead of, as is the case with a Martini-Henry or Remington bullet, a wound resulting through which you can thread a large-sized drainage-tube, in these wounds (i.e., Mauser) the tissues seem so little disturbed that they close together immediately the missile has passed through and healing begins at once, and in nearly all the cases they are as aseptic as can be wished. This, of course, is a great blessing and minimises our work to a great degree. There were a few cases of shell-wound and these were naturally more severe, the laceration of muscle and other soft tissues and the splintering of bone in these cases being their chief characteristic.

The following is a list of wounds which have been sustained by the officers:—Captain Forbes, bullet wound of the left axillary fold and left arm; Captain Buchanan, bullet wound of the right side of the abdomen; Captain Paton, gunshot wound of the thigh; Captain Newbigging, gunshot wound of the left shoulder caused by an explosive bullet; Captain Melvill, gunshot wound, fractured humerus; Captain Steyner, gunshot wound of the left elbow-joint; Captain Willcock, gunshot wound of the back, chest, and right hand; Captain Fyffe, gunshot wound through the back, forearm (right) between the bones, then round the chest wall; Captain Rice, gunshot wound of the left ankle; Lieutenant Barnes, gunshot wound of the right thigh; Lieutenant Perreau, gunshot wound of the right leg; Lieutenant Manley, gunshot wound of the right temporal bone (contused); Lieutenant Gillett, gunshot wound of the left thigh and right leg; in the case of Lieutenant Findlay the bullet entered below the iliac crest on the right side two inches posterior to the anterior superior spine, ran down as far as the great trochanter, and out at the back of the thigh outside the gluteal fold; and Lieutenant Hayley sustained a wound of the thigh with nerve disturbance. All these officers are progressing favourably and some of them will be fit for duty again in a short time. We are getting down to-day from the front a number of wounded Boer prisoners and I hope to be able to tell you in my next letter something about the injuries inflicted by our side and to compare the results of the wounds caused by the Lee-Metford and the Mauser bullet.

Our *personnel* has been increased by the addition of nine civilian surgeons who came out in the *Roslin Castle* and who were very welcome, as we were very short-handed. Now we can go on with easy minds as we are nearly up to our full strength of medical officers, though sadly deficient in men of the Royal Army Medical Corps, but I am glad to say there is a probability of their being *en route* and their turning up shortly. The weather still keeps rather cold in the morning and after sunset and the men coming from Natal are braced up wonderfully after a few days in hospital here, this climate being exceptionally good for wounds; in fact, they heal in such a marvellous manner that unless a man is struck in a vital part the probabilities are that he will be fit for fighting again in a few weeks—a fact which will be forcibly impressed on the Boers before we have done with them. I cannot help thinking that if they had had any experience of the wounds caused by their new rifles they would have discarded them in favour of their old friend the Martini-Henry.

Sir Redvers Buller visited the hospital yesterday and was gratified at the progress of the patients.

The *Sumatra* leaves to-day with invalids for Netley.

Wynberg, Nov. 15th.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6340 births and 4135 deaths were registered during the week ending Dec. 2nd. The annual rate of mortality in these towns, which had been 17·3 and 19·3 per 1000 in the two preceding weeks, declined again last week to 18·9. In London the rate was 19·4 per 1000, while it averaged 18·6 in the 32 provincial towns. The lowest death-rates in these towns were 11·4 in Croydon, 13·6 in Huddersfield, 14·1 in Wolverhampton, and 14·3 in Blackburn; the highest rates were 22·9 in Brighton, 23·8 in Liverpool, 24·9 in Plymouth, and 25·2 in Hull. The 4135 deaths in these towns included 450 which were referred to the principal zymotic diseases, against 422 and 433 in the two preceding weeks; of these 121 resulted from diphtheria, 110 from measles, 79 from "fever" (principally enteric), 60 from whooping-cough, 34 from scarlet fever, 32 from diarrhœa, and 14 from small-pox. No fatal cases of any of these diseases occurred last week in Derby; in the other towns they caused the lowest death-rates in Croydon, Bristol, Bolton, and Huddersfield; and the highest rates in Salford, Preston, Sheffield, and Hull. The greatest mortality from measles occurred in Birkenhead, Preston, Sheffield, and Hull; from "fever" in Birmingham, Nottingham, and Sunderland; and from diarrhœa in Plymouth. The mortality from scarlet fever and from whooping-cough showed no marked excess in any of the 33 large towns. The 121 deaths from diphtheria included 52 in London, 17 in Sheffield, eight in Leeds, seven in Liverpool, six in West Ham, five in Manchester, and four in Salford. 14 cases of small-pox were registered last week in Hull, but not one in any other of the 33 towns, and only one small-pox patient was under treatment in the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital on Saturday, Dec. 2nd, was 3445, against 3564, 3578, and 3503 at the end of the three preceding weeks; 294 new cases were admitted during the week, against 328, 334, and 293 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 324 and 350 in the two preceding weeks, further rose to 430 last week, and were 10 above the corrected average. The causes of 48, or 1·2 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Nottingham, Bradford, Newcastle, and in 12 other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Oldham, Blackburn, Halifax, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·0 per 1000 in each of the two preceding weeks, increased to 20·5 during the week ending Dec. 2nd, and exceeded by 1·6 per 1000 the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 17·5 in Leith, and 18·6 in Perth, to 21·6 in Paisley and 29·0 in Greenock. The 625 deaths in these towns included 34 which were referred to measles, 18 to diarrhœa, seven to "fever," six to scarlet fever, six to whooping-cough, and three to diphtheria. In all 74 deaths resulted from these principal zymotic diseases, against 44, 71, and 98 in the three preceding weeks. These 74 deaths were equal to an annual rate of 2·4 per 1000, which was 0·3 per 1000 above the mean rate last week from the same diseases in the 33 large English towns. The deaths from measles, which had increased from eight to 43 in the three preceding weeks, declined again to 34 last week, and included 14 in Glasgow, 12 in Greenock, and four in Dundee. The fatal cases of diarrhœa, which had been 24 and 15 in the two preceding weeks, rose again last week to 18, of which eight occurred in Glasgow, four in Dundee, and three in Edinburgh. The deaths referred to different forms of "fever," which had declined from 13 to five in the four preceding weeks, rose again to seven last week, and included five in Glasgow. The fatal cases of scarlet fever, which had been nine and eight in the two preceding weeks, further declined last week to six, of which three were registered in Glasgow. The deaths from whooping cough, which had been three, six, and 14 in the three preceding weeks, declined again to six last week, and included two in Dundee and two in Paisley. The three fatal cases of diphtheria, of which two were recorded in Aberdeen, showed a marked decline from recent weekly numbers. The deaths referred to diseases of the respiratory organs in these towns, which had been 131 and 128 in the two preceding weeks, rose again last week to 131, but were 16 below the number in the corresponding period of last year. The causes of 33, or more than 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 37·1 and 37·0, and 32·8 per 1000 in the three preceding weeks, rose again to

38·6 during the week ending Dec. 2nd. During the past four weeks the death-rate in the city has averaged 36·4 per 1000, the rate during the same period being 17·9 in London and 17·4 in Edinburgh. The 259 deaths registered in Dublin during the week under notice were 39 in excess of the number in the preceding week, and included 44 which were referred to the principal zymotic diseases, against 72 and 48 in the two preceding weeks; of these, 29 resulted from measles, six from "fever," four from diarrhœa, two from scarlet fever, two from diphtheria, one from whooping-cough, and not one from small-pox. These 44 deaths were equal to an annual rate of 6·6 per 1000, the zymotic death-rate during the same period being 1·7 in London and 0·7 in Edinburgh. The fatal cases of measles, which had been 51 and 38 in the two preceding weeks, further declined last week to 29. The deaths referred to different forms of "fever," which had been nine and four in the two preceding weeks, rose again to six last week. The fatal cases of diarrhœa, which had decreased from nine to three in the five preceding weeks, rose again to four last week. The mortality from scarlet fever was slightly in excess of the average in recent weeks. The two deaths from diphtheria corresponded with the number in the preceding week. The 259 deaths in Dublin last week included 25 of infants under one year of age and 67 of persons aged upwards of 60 years; the deaths of infants showed a decline, while those of elderly persons considerably exceeded the number recorded in the preceding week. Seven inquest cases and four deaths from violence were registered, and 100, or more than three-eighths, of the deaths occurred in public institutions. The causes of eight, or more than 3 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified: — Deputy Inspector-General Herbert M. Ellis to the Bermuda Hospital. Staff-Surgeons: John J. Dinnis to the *Highflyer* and Hamilton Meikle to the *St. Vincent*. Surgeons: Edward H. McSherry to the *Severn* and A. S. G. Bell to the *Duke of Wellington*.

ROYAL ARMY MEDICAL CORPS.

Major Robert N. Buist, from half-pay, to be Major, with precedence next below Major R. Holyoake, vice E. W. Gray, deceased.

YEOMANRY CAVALRY.

Suffolk (the Duke of York's Own Loyal Suffolk Hussars): Surgeon and Honorary Surgeon-Major Alfred Cooper, retired, late 14th Middlesex (Inns of Court) Volunteer Rifle Corps, to be Surgeon-Major.

VOLUNTEER CORPS.

Artillery: 1st Lincolnshire (Western Division, Royal Garrison Artillery): Surgeon-Major E. B. Reckitt to be Surgeon-Lieutenant-Colonel. 1st Sussex (Eastern Division, Royal Garrison Artillery): Surgeon-Lieutenant C. F. Goode, resigns his commission. 1st Worcestershire and Warwickshire: Samuel Percy Johnson to be Surgeon-Lieutenant. *Rifle:* 18th Middlesex: Surgeon-Captain C. Godson to be Surgeon-Major and Surgeon-Lieutenant C. J. Beattie to be Surgeon-Captain. Surgeon-Lieutenant C. E. Humphreys, 5th Volunteer Battalion South Wales Borderers, passed the proficiency examination at Chester on Oct. 25th.

TRANSVAAL WAR NOTES.

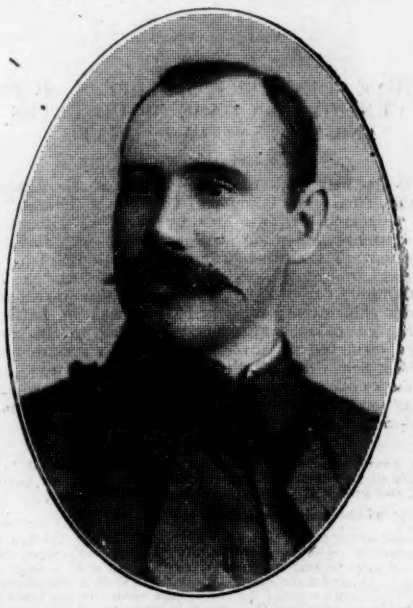
The board of management of the Metropolitan Convalescent Institution have offered to place at the disposal of the Director-General of the Army Medical Department 50 beds in the homes at Walton-on-Thames and Bexhill-on-Sea for a period of five months from Dec. 1st for the use of soldiers returning from South Africa.

Mr. Valentine Matthews sends to us an appeal to the medical profession for subscriptions to a fund now being raised by the London Companies Volunteer Medical Staff Corps for the benefit of the wives and families of non-commissioned officers and men of the Royal Army Medical Corps on active service in South Africa. The fund is being raised with the approval of the Director-General of the Army Medical Department and with the active support of Surgeon-Lieutenant-Colonel J. E. Squire, commanding the London companies. A committee, of which he is the chairman, has been formed among the officers of the corps. He says: "It is needless to remind members of the profession that the men of the R.A.M.C., although non-combatants, are frequently exposed to fire and share all the fatigue and hardships of combatant corps besides the additional risk of infection incurred in nursing the sick, and that by subscribing to this fund they will show in a practical way their appreciation of the work done by this branch of the service and the sympathy with the men's families." The appeal is addressed not only to medical officers of the services but also to civilian practitioners. Subscriptions should be sent to Valentine Matthews, Surgeon-Major V.M.S.C., honorary secretary, V.M.S.C. Relief Fund, Headquarters London Company, V.M.S.C., 51, Calthorpe-street, W.C.

Lieutenant-Colonel W. L. Gubbins, R.A.M.C., and Major B. M. Skinner R.A.M.C., have been appointed principal medical officer and medical officer respectively to the Sixth Division for South Africa.

On Dec. 4th Major Cabell, Dr. Rodman, Dr. Dodge, Dr. Weber, Dr. Hastings, Mrs. Dunlop Hopkins, Miss Hibbard (superintendent), Miss Ludekens, Miss Manly, Miss Macpherson, and Miss MacVean, of the American hospital ship *Maine*, visited Windsor Castle by permission of the Queen, and had the honour of being presented to Her Majesty.

We regret to learn that Captain Samuel Guise Moores, R.A.M.C., was wounded in the battle of Modder River on



Nov. 28th. He was appointed Surgeon-Captain in February, 1890, and was attached to the Scots Guards. By the courtesy of the *Daily Graphic* we are enabled to give our readers a portrait of Captain Moores.

The *Sumatra* arrived in the Albert Docks on Wednesday, Dec. 6th, with two wounded officers and 126 invalided soldiers and sailors from South Africa. The two officers were wounded at the battle of Elands Lasgte. The men are invalided on account of ill health.

PRACTICAL PATRIOTISM.

At a meeting of the West London Medico-Chirurgical Society on Dec. 1st it was unanimously resolved to organise a scheme for affording gratuitous medical attendance in their own homes to distressed wives and families of soldiers serving with the colours. A committee was appointed to carry out a scheme similar to that which the Chelsea Clinical Society had organised in certain districts in connexion with the Soldiers' and Sailors' Families Association. As the West London Medico-Chirurgical Society has over 500 members, its action in this matter will assure

free medical attendance to distressed families of soldiers throughout a very wide district.

THE LEGION OF HONOUR.

The Cross of the Legion of Honour has been bestowed upon Dr. Roquemaure of the French Navy as a reward for his gallantry while on active service in Central Africa. The official record of this officer's exploit, bearing date Sept. 21st, 1899, is couched in the following terms: "Deed of War in the Soudan. M. Roquemaure (G. E. J.), medical officer of the 2nd class, afforded an example of the utmost devotion and valour in the attack of Nov. 1st, 1898, collecting and attending on the wounded after he himself had been trampled over by horses."

UGANDA HONOURS.

The Distinguished Service Order which, as we have already announced, was awarded to Captain John David Ferguson, R.A.M.C., and to Captain George Somers McLoughlin, R.A.M.C., for service in Uganda 1897–98, was conferred upon these two officers at Windsor by Her Majesty the Queen on Nov. 30th.

Colonel Owen E. P. Lloyd, V.C., R.A.M.C., has been appointed medical officer to the Burma Chinese Boundary Commission.

Correspondence.

"Audi alteram partem."

"ACUTE DIABETES MELLITUS SUPERVENING IN A CASE OF DIABETES INSIPIDUS; COMA; DEATH."

To the Editors of THE LANCET.

SIRS,—It may add to the interest of Mr. Blackett's quotation from "A Compleat Treatise of Urines," 1703, which appeared in THE LANCET of Nov. 25th, to give some extracts regarding the treatment of diabetes at that period. I take them from the fourth English edition of the Pharmacopœia Extemporanea, by Thomas Fuller, M.D. Cantab., dated 1730. The first edition in English of his work (his former writings having been in Latin) was brought out in self-protection, according to the author's apology, owing to an advertisement which appeared in the *Post-Man*, Sept. 18th, 1708, that the work was to be sent to the press by other parties in the company of other pharmacopœias on the following Michaelmas Day. His first prescription is entitled:—

AN INCRASSATING DECOCTION.

Take gum-arabic grossly powdered three ounces, boil it in water (carefully stirring it lest it burn to the skillet) from one quart to 28 ounces, and add syrup of marsh-mallow four ounces; mix.

His note to the prescription runs:

It incrassateth acrid, thin lympha and as 'twere sheathes up the sharp points of its saline particles. It's a very good remedy and easy to be had against scalding urine; may be useful in a troublesome, tickling cough, and a diabetes. I have tried it in a rheumatism and did not find it answer; and (by the by) the serum of the blood in that distemper is not more salt than usual, to my taste. I used to prescribe a quarter of a pint twice a day.

His second prescription is:—

A DECOCTION CALLED LIBERANS.

Take sassaphras, liquorice, aniseed, each four ounces; calx-water (pure, clear) two gallons; infuse cold three days, then strain.

His note runs:—

It gives great relief in defluxions, strumas, diabetes, and running ulcers. For calx affords an excellent salt, by which the muriatic particles of the blood being precipitated the whole mass becomes more mild, and thereupon more easily embraces the new chyle and changeth it into its own nature; whereby the flux of the chyle to the ulcered (or otherwise ill-affected) parts is rendered less, and consequently cure is the sooner wrought; a quarter of a pint is to be taken thrice a day.

He gives a third prescription called "The Arabic Emulsion" in which he seems to consider gum-arabic the base. It contains gum-arabic, barley water, mallow seed, white poppy seed, sweet almonds, sugar of lead, and syrup of marsh-mallows.

With regard to Mr. Blackett's article I have had one case which partly supported his contention. In that case the origin of a state of matters resembling diabetes insipidus was nervous disorder, but the case has not yet gone on to diabetes mellitus. I must confess, however, that I would have taken the sequence of events described in Mr. Blackett's article pretty much as a matter of course. It is a mere step from hysterical polyuria to diabetes insipidus and I believe that it is now recognised that the latter state may terminate as diabetes mellitus. The following case which happened within my experience is of peculiar interest as bearing on the point at issue. A lad, aged 17 years, of calm and gentlemanly demeanour had an attack diagnosed as diabetes insipidus while passing through the modern educational mill. His father, at that time about 45 years of age, a business man, shrewd, suave, and cool, from whom few medical men would have ventured to inquire regarding hysteria, had been very excitable as a young man, the mere expectation of having to make a speech, attend an examination, or take part in any public function bringing on an attack of diarrhœa.

I am, Sirs, yours faithfully,

Glasgow. WALTER COLQUHOUN.

THE LATE MR. STEPHEN MACKEY: AN APPEAL.

To the Editors of THE LANCET.

SIRS,—May I appeal to the generosity of the profession on behalf of the widow of the late Mr. Stephen Mackey who, by his untimely death from typhoid fever, has been left utterly unprovided for? Mr. Mackey was originally in good practice in Bedfordshire, but a severe horse accident incapacitated him from doing anything for some five years and left his resources at the end of this time quite exhausted. He has since maintained himself and his wife with locum-tenent work and it was when doing this duty that he was seized with the attack which has unfortunately proved fatal. His wife, who is quite without means, proposes, if sufficient funds can be obtained, to join a hospital in order to be trained as an obstetric nurse, after which she hopes to be able to support herself. Any subscriptions may be sent to me and will be at once acknowledged.

I am, Sirs, yours faithfully,

59, Addison-gardens, W. LEONARD DOBSON, M.D. Lond.

THE MIDWIVES' REGISTRATION BILL.

To the Editors of THE LANCET.

SIRS,—The enclosed advertisement is cut from the *Lincolnshire Echo* of Saturday, Nov. 25th; I forward to you by this post a marked copy of the *Alford Gazette* of the same date, which shows that the advertisement is being largely circulated in Lincolnshire at any rate.

IN PARLIAMENT.—All married people should agitate to secure the passing of "THE MIDWIVES' REGISTRATION BILL." Write your M.P. urging him to vote for it. This Bill will practically abolish the present system of man-midwifery, (which was only begun in England about 90 years ago) by creating a class of properly trained, qualified, and "REGISTERED" Midwives, who will be employed with perfect confidence in all cases. The public could bring this practice to an end in 12 months if they wish. This practice is not humanitarian in any sense of the word. The Bible condemns man-midwifery. All Christian people sin grievously against God if they do not condemn this practice.

May I ask the promoters of the Midwives' Registration Bill through your columns whether they sympathise with the object of this advertisement? If not, will they take steps to prove to the general practitioners of the country that their object is not to provide a class of midwives who will be employed with perfect confidence in all cases? Very many of us view the proposed registration with deep misgivings and advertisements like the above tend to increase our feeling of opposition. I am quite aware of the fact that "guinea" midwifery is sneered at by many successful men and the view has been expressed in your correspondence columns that we should be better without it. Personally I do not think so. Midwifery is a most important branch of a country practitioner's work and a proposal to take that work out of our hands must surely be opposed.

I think the matter is of sufficient importance to be dealt with editorially and I shall be very glad of a definite expression of opinion on the part of THE LANCET. Apart from the religious cant which all right-minded people must condemn the question is, Will this proposed legislation act in the way that this advertisement suggests, in spite of the denial of the official promoters of the Bill that it will do so or is intended to do so? If the midwife is to be employed in

all cases to the exclusion of the qualified medical man the latter will be thoroughly justified in opposing legislation which will produce such a result by every means in his power.—I am, Sirs, yours faithfully,

T. EDWARD SANDALL, M.B., B.C. Cantab.

Alford, Nov. 27th, 1899.

*** We have often seen the advertisement and have commented upon it before. It is silly and offensive and the promoters of legislation in the matter must, we should think, be seriously annoyed by it.—ED. L.

"GONORRHŒAL RHEUMATISM."

To the Editors of THE LANCET.

SIRS,—I notice that Mr. Christopher Heath, in his letter to THE LANCET of Nov. 25th regarding the treatment of gonorrhœal rheumatism, does not advise the use of splints or any local treatment to the urethra. The use of splints is a common practice in the treatment of this disease but it would appear to aggravate the tendency to ankylosis which is the normal tendency of the affection. However, with regard to the urethra, if any discharge is present I think it wise to treat it, since the urethra is the starting point for the pyogenic or gonococcal process, whichever view is held.

I am, Sirs, yours faithfully,

Dec. 1st, 1899. C. F. MARSHALL.

THE USE OF A TYRE.

To the Editors of THE LANCET.

SIRS,—In your report of the meeting of the Plymouth Medical Society held on Nov. 15th I am reported to have treated (from day of birth) an extreme case of talipes equinovarus with metal splints covered with a portion of the inner tube of a pneumatic bicycle tyre and strapped in position. The steel splints were covered with washleather, placed on bandaged legs, strapped in position, and bandaged, and then the whole foot and leg were covered with a portion of the inner tube of a pneumatic bicycle tyre, with the object of keeping the bandaging and splints dry and clean, re-adjustment being done once in 14 days, instead of daily, as usually recommended. I am, Sirs, yours faithfully,

Plymouth, Dec. 4th, 1899. GEORGE F. ALDOUS.

BORIC ACID AND FORMALIN AS MILK PRESERVATIVES: A CORRECTION.

To the Editors of THE LANCET.

SIRS,—It has been brought to my notice that in parts of my article on this subject appearing in THE LANCET of Nov. 11th, 1899, I have inadvertently used the term "formalin" instead of "formic aldehyde" in referring to the experiments of Rideal and Foulerton, and also in Tables B and C of my own experiments. Formic aldehyde is, of course, present in formalin only to the extent of 40 per cent.

I am, Sirs, yours faithfully,

H. E. ANNETT.

MR. BRUDENELL CARTER AND THE REPORTING OF THE PROCEEDINGS OF THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—I have addressed the following letter to the editor of the *British Medical Journal*, and as the matters to which it relates are of much importance to the profession I shall be greatly obliged if you will be so good as to give it a place in your columns.

I am, Sirs, yours faithfully,

R. BRUDENELL CARTER.

"SIR,—With reference to certain 'Notes' on page 1568 of the issue of the *British Medical Journal* for the 2nd inst. I beg leave to express my sincere regret that not having at the time seen the issue for the 17th of June I may be held to have included the *Journal* in my general statement to the Medical Council, on the 28th of November, that the speech which I made to that body on the 8th of June in the debate raised by Mr. Horsley on the Hunter case had been 'suppressed.' I have now seen the *Journal* for the date in question and I find not only that my speech, in so far as it relates to the topic under discussion, was 'suppressed,' but also that your reporter, in lieu of the suppressed portion, did me the honour of writing, or you did me the honour of publishing, matter which I not only never uttered but which had never in any form so much as presented itself to my imagination. I refer to the following passage in your so-called 'report' which occurs on page 1476:—

"He then referred to a meeting of registered practitioners of England, at which it had been stated that the Council had improperly resisted access to the documents which were necessary to form an opinion on the subject. He quoted from the minutes of the Council to show that that was an entire mistake and he thought it quite time that this fact was made clear.

"It so happens, Sir, that I kept a careful note of the portion of my speech which the above quotation is supposed or intended to represent, and what I said was as follows:—

"On the 22nd of November, 1898, the Council assembled for its winter session; and on the 10th of December next following there appeared in THE LANCET a paper which purported to be 'A Fifth Report to the Registered Practitioners of England and Wales, by Victor Horsley.' I have not heard that the paper in question has been repudiated by Mr. Horsley as a hoax perpetrated upon the proprietors of THE LANCET. It contained, among other matter, the following statement. 'On the 22nd of November Mr. Brown and I moved for the documents in the case of Mr. Hunter to be produced; and, as just stated, we carried that motion in the face of a strenuous opposition offered by the President, the Chairman of the Penal Cases Committee, by Dr. MacAlister, by Dr. Heron Watson, and by Mr. Carter.' Speaking generally, Sir, the passage which I have quoted is a string of falsehoods; and I hope that Mr. Horsley, now that he tells us he is endeavouring to relieve the Council of a reproach, will relieve it from that which he has thus unjustly and untruly cast upon it. It is true that the motion described was made by Mr. Brown, was seconded by Mr. Horsley, and carried by a considerable majority. According to the report in the *British Medical Journal* it was carried 'after brief discussion,' no details of which were given, so that there can hardly have been strenuous opposition to its adoption. You, Sir, according to the very full and accurate report of THE LANCET, did not oppose the motion, either strenuously or in any other manner, for you did not utter a word. The chairman of the Penal Cases Committee did not oppose it, perhaps for the reason that, except yourself, there is no such official in existence, and that you, Sir, did not follow the example of the Prince Bishops of mediæval times and did not oppose as a chairman the motion which you had accepted as a president. Neither Dr. Heron Watson nor I opened our lips. Dr. MacAlister cannot truly be said to have opposed the resolution; although, as chairman of the Business Committee, he pointed out a difficulty in the way of the production of the documents, arising from the fact that, in consequence of the pending appeal, some of them had been removed from the house and were in the custody of the legal advisers. Mr. Horsley then spoke a second time. Sir Richard Thorne advised the withdrawal of the motion on the ground that many of the documents were in other hands. Mr. Brown spoke a second time. Mr. Horsley spoke a third time. Dr. Atthill said that in view of the pendency of an appeal he thought it would not be wise to produce the documents. Dr. Glover, Sir John Batty Tuke, and Mr. Tomes briefly supported the motion, which was then put and carried by a large majority, I myself voting in its favour. I had not the smallest objection to the production of the papers to the Council, although in a previous session I had concurred with the majority in objecting to our papers being privately ransacked by Mr. Horsley without any regulations to secure their safe custody and as part of a fishing investigation conducted in the hope of finding something which would do to talk about. The brief debate occupied only a few minutes and gave occasion for 11 speeches, five of which were made by Mr. Brown and Mr. Horsley, three by members of Council who supported them, and three by members who thought the motion should be postponed."

"The above speech, Sir, was that which Mr. Horsley in his next or sixth 'report' declared to have consisted of 'abuse' of him, and both you and THE LANCET published that assertion. I need hardly point out that your version of it at least contained no 'abuse,' nor, I think, does the genuine one. I had to say and prove in the plainest possible words that Mr. Horsley's published statements were not true. I said this, and I proved it up to the hilt. I could not then, of course, anticipate the more recent and more splendid examples of mendacity which have since been furnished by Mr. Horsley's description of the Society of Apothecaries, but I was none the less anxious to impress upon the profession the high degree of caution with which it is necessary that any statements proceeding from him should be received. While I did not in any way 'abuse' Mr. Horsley, neither did I say or suggest anything about a 'mistake.' I knew of no evidence upon which the hypothesis of a 'mistake' could be founded; and I may add that Mr. Horsley, who heard my speech and could not reply to it, has since not only repeated his false assertion that I resisted his motion for papers, but has 'gone one better' by describing my resistance as 'unscrupulous.' I should like also to call the attention of the profession to the attitude which Mr. Horsley

assumed when I had exposed his falsehood about the Society of Apothecaries. I showed that when Mr. Horsley wrote that I was elected by the master and wardens, and that they had received no medical examination, he all the time knew that I was elected by the court and that 'most' of the members of the court were on the Medical Register, although 'some' (who had retired from practice) were not. He said in reply that he had been informed 'at the office of the Society' that 'practically' (whatever that may mean) I was elected by the master and wardens and that at 'that time [at what time?] the master and wardens were not on the Medical Register.' Is it even conceivable that Mr. Horsley ever received any such information? If he will give the date of his inquiry 'at the office of the Society' and will mention the official with whom he was in communication we shall be in a position to follow this matter to its source. I had said that for 43 years from 1815 the Society had carried on its work without reproach from either the public or the profession; and I specified the period of time because it came down to the passage of the Act of 1858, under which the work of the Society, like that of other examining bodies, has been subject to a more definite control than that of either public or professional opinion, the control of the Medical Council itself. Mr. Horsley endeavoured to whittle away the effect of his reluctant but enforced apologies to the Society by saying that its examinations are not now carried on in a way of which the Council would approve and by quoting, in support of this assertion, the views of some unnamed medical students who had been under his tuition. Mr. Horsley's students must belong to one of three categories. They must be students who have never gone up for the Society's examination, in which case they would know nothing about it; or they must have gone up and passed, in which case they would not be likely to belittle it; or they must have gone up and failed, in which case their opinions would hardly be confirmed by their experience. The merits of the examination do not rest upon the views of students but upon the report officially made to the Council by its inspectors and visitors that it is, in the language of the Medical Acts, 'sufficient' to satisfy their requirements. I did not wish to occupy the time of the Council with merely personal matters and it therefore was not worth my while to notice Mr. Horsley's contention, which he said I had not 'met,' that I am not the representative of the whole body of the Licentiates of the Society. If I were I should have no claim to a seat in the Council and the contention is utterly absurd. The legislature has not provided for any such representative. It has provided for the representation, not of the Licentiates, but of the licensing body. The licensing body is the Society of Apothecaries and the Society of Apothecaries can only take corporate action through its authorities appointed by Royal Charter. I am, and have always claimed to be, the representative of the 'Society of Apothecaries.'

"If I may refer for an instant to your issue of June 3rd (which I did not see until my attention was called to it last week by a correspondent) and to your reference to it on the 2nd inst. it would be to repeat my opinion that it is not legitimate journalism to comment editorially upon any part of a reported speech which is not included in the report, and also altogether to disclaim the 'bitterness' which you have been pleased to attribute to me. I believe I did say that the term 'medical society' was somewhat indefinite and might be used to include not only large societies, primarily ethical or political in their character, but also small ones, primarily social, such as chess-clubs and book-clubs; and I believe I also expressed the scepticism naturally produced by the receipt of resolutions couched in identical terms and professedly coming from different sources. I make no secret of my entire disapproval of any proposal to increase the direct representation in the Council, but this disapproval rests upon such humble efforts at reasoning as fall within my capacity; and if it is to be removed the removal will have to be effected by reasoning and not by 'resolutions,' no matter what may be the source from which they proceed.

"Finally, Sir, I should like to express my deep and sincere gratitude for the absolutely overpowering compliment paid to me in your last issue. It is so overpowering that, although none the less highly gratified, I cannot venture in any way to accept or appropriate it; and, at the same time, I am almost shocked by the exaggerated modesty by which it has been dictated. You say that my 'eloquence has been subjected to a process of Bowdlerisation.' The word was invented by the late General Perronet Thompson in order to express what was done to the works of Shakespeare and Gibbon by a well-meaning but not very wise physician, who thereby (*absit omen*) rendered himself a laughing-stock for all future generations of men. I am more than content with the company in which you have placed me, and sincerely trust that you may not share the fate of the model with whom you have elected to compare yourself.

"I have the honour to be, Sir,

"Your most obedient servant,

"Harley-street, Dec. 4th." "R. BRUDENELL CARTER.

A SAD AND URGENT CASE.

To the Editors of THE LANCET.

SIRS,—May I through your columns draw the attention of brother practitioners to a most sad case with which I am personally acquainted and which is in most urgent need of some help and assistance? An Irish practitioner, for some years holding a good practice in the north of London, contracted rectal trouble and had two operations performed upon him. This and the consequent long lying up so deteriorated his practice that he was obliged to relinquish it, his health being greatly shattered. After a time he tried to establish himself in a comparatively poor suburb, but again his health broke down, and with a young family of five children he was reduced to sheer poverty. Still, rather than abandon his wife and children to want by going into hospital he continued to work, often in great agony, and, despite of his disease, succeeded in getting about him a new connexion. Of late, however, his health has been so completely shattered that he could not continue to do his work and he has been forced again to go into hospital. By interest some provision has been made for a few of his children, but now the insurance on his life will be sacrificed and all his furniture sold unless some help is forthcoming for him immediately. I feel certain, Sirs, that you will help in this melancholy case, and I would, through your columns, ask on behalf of this poor fellow and his half-starving family some aid at the hands of his fellow-practitioners. Any sum, however small, will be accepted gratefully.

I am, Sirs, yours faithfully,

H. MACNAUGHTON-JONES.

131, Harley-street, W., Dec. 3rd, 1899.

MEDICAL SERVICE IN REMOTE SCOTLAND.

To the Editors of THE LANCET.

SIRS,—Will you kindly state, through the medium of THE LANCET, whether you favour the movement which is now in progress in the highlands of Scotland to induce the Local Government Board (Scotland) to grant to their medical officers in remote parishes the privilege of a paid substitute during an annual holiday, a like privilege having been already granted by the Irish Board to their medical officers in the outlying districts of Ireland? I may add that I have had experience in a remote dispensary district in Ireland which would compare very favourably—as regards expenses—with my present position as parish medical officer in a wild district of the Scottish Highlands.

I am, Sirs, yours faithfully,

Nov. 23th, 1899. PAROCHIAL.

*** Certainly.—ED. L.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Liverpool School of Tropical Diseases: Recognition by the Colonial Office.

THE Colonial Office have consented to give official recognition to the Liverpool School of Tropical Diseases. The recognition of the Liverpool School (the earliest in point of foundation) by the Government, although tardy, is nevertheless welcome. There can be no doubt that, with its staff, appliances, and material, the Liverpool School, under the able supervision of Professor Boyce and Major Ross, I.M.S., will prove a valuable means for training colonial medical officers. Mr. Alfred Jones, who took a leading part in the foundation of the school, has been indefatigable in his efforts to obtain from Mr. Chamberlain that official

recognition of the status of the Liverpool school for educational purposes which has now been so happily realised.

The Hospital Saturday Fund, 1898–99.

The annual report of the Hospital Saturday Fund stated that the Fund had reached the substantial sum of £7020 15*s.* 9*d.*, an increase of £707 7*s.* 6*d.* on last year's collection. This represented not only the largest amount yet subscribed but also the greatest advance since 1889–90, the year the Fund was established on its present basis. The committee attributed this success to the increased interest manifested in the movement, a greater number of firms adopting the weekly in lieu of the annual collection, and also to the splendid work done on Hospital Saturday by the ladies, the street collection realising £873 0*s.* 4*d.*, or £135 7*s.* 5*d.* more than last year. There were at present in circulation 1623 boxes and 827 weekly collecting cards, and 115 firms used their own method of collecting, an increase on the year 1898 of 87 boxes, 65 cards, and one firm using its own method.

The Lunacy Difficulty in Lancashire.

The experience of the Bolton Board of Guardians in the difficulty of finding accommodation in the county asylums for their certified pauper lunatics is similar to that experienced in the parish of Liverpool and in the West Derby and Toxteth unions. The chairman of the Bolton board recently drew attention to the extraordinary pressure at the Lancashire asylums, which were all full, and Bolton Union had 611 lunatics. It was necessary to send over 50 outside, even to South Wales. The Lancashire Asylums Board are borrowing the sum of £20,000 to meet the cost of making bricks for the new asylum at Winwick. The indebtedness of the asylum board, in consequence of the additions, alterations, and improvements at the different asylums, amounted to £331,104 on March 31st last. Since then £106,000 had been borrowed and £19,539 repaid, leaving a debit balance of £767,565. All of which goes to show that the authorities of the asylums board have their hands full at the present moment. The scientific requirements for the study of mental diseases have also occupied the attention of the board in that a sum of £1337 has been granted out of the asylums fund for the purpose of erecting and fitting up a laboratory and museum for pathology and bacteriology at Lancaster Asylum.

Presentation to Dr. James Barr by the Lancashire and Cheshire Branch of the British Medical Association.

At the Medical Institution on Nov. 29th Dr. James Barr, honorary physician to the Royal Infirmary, and late honorary secretary of the Lancashire and Cheshire Branch of the British Medical Association, was presented by the members of the Lancashire and Cheshire branch of the association with a valuable service of plate, suitably inscribed. The presentation was made by Dr. Macfie of Bolton, the President of the branch, on behalf of the members in an appropriate speech. The President alluded to Dr. Barr's valuable services to the branch during a period of seven years. During Dr. Barr's term of office the membership of the Lancashire and Cheshire branch had increased from 800 to 1150, being, with one exception, the largest branch of the association. Dr. Barr acknowledged the presentation in a felicitous speech.

Dec. 5th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS)

Edinburgh Royal Infirmary.

AT a meeting of the managers of the Edinburgh Royal Infirmary held on Nov. 27th the managers appointed Colonel W. P. Warburton, M.D. Edin., C.S.I., superintendent of the infirmary, in room of the late Surgeon-Major-General Lithgow. The new superintendent has had large experience in administrative work in India. He has acted as civil surgeon in the Punjab where part of his duties was the superintendance of dispensaries and of a district gaol. He was for nearly two years superintendent of the Central and District gaols, the Thuggee Schools of Industry, and Female Penitentiary at Lahore. For more than 17 years he acted as medical officer to the native state of Kapurthala, where he organised the medical and vaccination departments and introduced registration of births and deaths. For seven months he was principal medical officer of the military districts of Bundelkhund and Narbada, while for four years he held the post of Inspector-General of Civil Hospitals of the North-West Provinces and Oudh. In 1897, when the Director-General of the Indian Medical Service was deputed to represent the Government of India at the Plague Conference at Venice, Colonel Warburton officiated as Director-General for nearly three months.

Edinburgh University Examination Statistics.

From the statistics for the October examinations of Edinburgh University it appears that in the Faculty of Medicine 119 students completed the preliminary examination, while 101 had either already passed the preliminary examination or were otherwise accounted for. The total number of first-year students of medicine is thus 220. The total of first-year arts students is 281.

Dundee Lunacy Board.

At a meeting of the newly-appointed Lunacy Board for Dundee on Nov. 28th a communication was read from the Dundee Asylum authorities intimating that in three months' time the rate for pauper patients would be raised from 11*s.* 9*d.* to 13*s.* 6*d.* per patient per week. It was at first proposed that the Lunacy Board should refuse to pay this increased rate, but it was ultimately decided that a committee should in the first place investigate the circumstances and also report upon the whole question of the position of the Dundee board to the asylum authorities

University Court of St. Andrews.

At a meeting of the University Court of St. Andrews on Nov. 25th the meeting adopted the report of the committee appointed to consider the necessary steps to be taken with regard to the erection of a building for the Conjoint University School of Medicine at Dundee. The Court also approved of the plans generally and that Mr. Murray Robertson, architect, Dundee, should be also employed to prepare working schedules and detailed estimates. The Court also approved of the action of the Business and Finance Committee in withdrawing the education class from the new medical buildings.

Tercentenary of the Faculty of Physicians and Surgeons of Glasgow.

On Nov. 29th the Faculty of Physicians and Surgeons of Glasgow celebrated their 300th anniversary, the Charter from King James the Sixth of Scotland bearing date the "penult day of November," 1599. The annual dinner of the Faculty took place on the evening of the tercentenary, when considerably over one hundred guests and Fellows assembled in the Faculty Hall, St. Vincent-street. The chair was occupied by Dr. Hector Clare Cameron, the President, while the place of Vice-President was occupied by Dr. James Finlayson, the Visitor. The guests included the Lord Provost and other civic dignitaries, Lord Kelvin, the Principal and Deans of Faculties of the University, the chief office-bearers of the Edinburgh Colleges, the Solicitor-General for Scotland, and a number of Members of Parliament. Principal Story proposed the toast "The Faculty of Physicians and Surgeons" in an interesting speech full of references to the history of the Faculty, and the President made a suitable reply. In the course of the proceedings addresses of congratulation were read by the Presidents of the Royal Colleges of Physicians and Surgeons of Edinburgh. It has been resolved that the occurrence of the tercentenary shall be further celebrated by the members of the profession in Glasgow and the west of Scotland being invited by the Faculty to a conversazione in the course of the winter.

Dec. 5th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Health of Dublin.

THE death-rate of Dublin, which showed indications of decline last week, is again apparently on the rise. At a meeting of the Public Health Committee of the corporation held on Dec. 5th Sir Charles Cameron reported that the death-rate for the week which ended on Saturday, Dec. 2nd was 40 2 per 1000 persons living, the mean for the corresponding week being 27 4. A conference of the medical officers of health of the Dublin city districts was held on Nov. 27th at the Public Health Office for the purpose of

considering the causes of the present death-rate, when a motion on one of the lines of reform recently suggested by the Special Sanitary Commissioner of THE LANCET was proposed by Dr. T. Donnelly of North Dublin and passed unanimously:—

That when any cases of scarlet fever or measles occur in any district and there is reason to fear that these diseases will become epidemic the schools in such districts should be closed for 14 days.

The late Dr. W. I. Wheeler.

At a meeting of the board of the City of Dublin Nursing Institution held at the Home, 27, Upper Baggot-street, on Dec. 1st, the directors unanimously passed the following resolution:—

The directors of the City of Dublin Nursing Institution desire to record their deep regret for the death of their colleague, Mr. William I. de Courcy Wheeler, and to express their sympathy with his family in their bereavement. The foundation of the institution was mainly due to his desire to aid the City of Dublin Hospital and at the same time to provide training and employment for Irish nurses. For the past 15 years he devoted his energies, his resources, and his abilities to promoting its success and it owes its present position of self-supporting independence in a large measure to his exertions.

Dr. Wheeler's funeral took place on Nov. 29th and it was attended by the President of the Royal College of Physicians of Ireland, the President of the Royal College of Surgeons in Ireland and an unusually large assemblage of the medical profession and of the general public. The following little anecdote in connexion with Dr. Wheeler may interest readers of THE LANCET, for it is quite characteristic of his fixedness of purpose and independent resolution as regards all that he undertook. He was summoned in 1883 by a general practitioner of North Dublin to see a man who was old, insensible, and dying. It was merely a matter of form and he of course recognised it as such. A very few minutes sufficed for him to nod his head in accord with that of the practitioner. On being handed three guineas he said that his consultation fee was two guineas. The practitioner stated that the patient could well afford the additional guinea, whereupon Dr. Wheeler, after buttoning up the well-cut frock coat which he always wore, astonished his hearer by pointing out that the patient could give money away in charity but not *to him*. A month later the public papers were full of Dr. Wheeler's action against the Irish Government in connexion with a fee of 11 guineas for attendance on Mr. Sheen-Carter, an Irish landlord who was badly wounded by "Moonlighters" in Mayo. The amount of the fee—for 11 visits—seemed at first sight large; but it was considered fair under the special circumstances and according to Irish ideas. It was disputed by the Government and became the subject of a public litigation. Dr. Wheeler steadfastly refused to abate his claim and in the end was duly paid it in full.

The Death of another Distinguished Irish Surgeon.

Mr. Edward Hamilton, M.D. Dub., F.R.C.S. Irel., died this Tuesday afternoon after a brief illness at the age of 76 years. He was surgeon-in-ordinary to the Lord Lieutenant and was twice President of the Royal College of Surgeons in Ireland—viz., in 1876 and 1893.

The County Tyrone Infirmary.

The Tyrone County Council, at a meeting on Nov. 30th, unanimously passed a resolution allotting a grant of £3300 to the building fund of the new County Hospital at Omagh. The sum of nearly £6000 has already been contributed, besides a special subscription of £1000 for the furnishing and completion of the internal arrangements. In making this grant the county council are not only doing what will be most useful for the poor of the county, but what is legalised by the Local Government Board.

The Weather of November in Ulster.

The latter half of November in Ulster was remarkably mild, with scarcely any frost, and quite like September. 3·62 inches of rain fell on 15 days, and up to the present 34·62 inches of rain have fallen this year, which is distinctly under the average. The ordinary amount of rain for the year in Belfast is 37·01 inches, so we need 2·39 inches yet; but up to the present December has been very wet.

Dec. 5th.

TOTNES COTTAGE HOSPITAL.—At a meeting of subscribers of this institution held recently it was resolved to erect a new hospital at a cost of £2000. The plans of the building have been prepared and £1500 already subscribed.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

The New York Society for the Prevention of Cruelty to Children.

TWENTY-FIVE years ago this society, the first of its name in the world, came into existence. It has a function in this city which is exclusively its own. Its chief object is not the care and support of children; it undertakes that care and support only as an incident to the fulfilment of its main business, which is substantially and mainly that of a public office for the administration of the law so far as it concerns children in the city of New York who are otherwise unprotected. It is a branch of the police department, the district attorney's office, and of the criminal courts. The work done by the society is of the utmost importance to the community and is absolutely essential for the protection of the poor people who without some agency would have no protection of any kind whatever. During these 25 years it has received and investigated 127,594 complaints, involving more than 382,782 children, obtained 47,077 convictions, and rescued 83,141 children from vice and infamy and destitution and placed them in comfortable homes and under moral influences. Its reception rooms during the past 18 years of their establishment have sheltered, clothed, and fed 39,078 children and furnished 351,867 substantial meals. Day and night, in summer and winter, its work never ceases, and no child has ever been turned away without temporary shelter. At its instance and by its example 231 similar societies with a like object have been organised throughout the United States and 84 others in foreign lands. During the last year it received 8440 complaints, prosecuted 3218 people, secured 3141 convictions, and rescued 5376 cases at the request of city magistrates, involving applications to commit 1266 children, of which number 316 were committed and 950 were found to be unworthy of commitment, thus saving the taxpayers of the city and county of New York at the *per capita* allowance of $104.00 per year the sum of $98,800.

Immigration for 1899.

In his annual report to the Secretary of the Treasury the Commissioner-General of the Immigration Bureau gives the total arrivals for the year ending June 30th, 1899, as 311,715—an increase of 82,416, or 36 per cent., over the next preceding year. The opinion is expressed that at least 25,000 persons were not listed in that number through a defect in the law, as well as an indeterminate number from Canada and Mexico who are not, under existing regulations, accounted for. The increase over the figures for last year is represented largely by immigration from Italy, Austro-Hungary, Russia, and Finland, which show gains respectively of 18,806, 22,694, and 31,154. Of the total arrivals Europe supplied 297,349, Asia 8972, Africa 51, and all other countries 5343. The distribution as to sex was 195,277 males and 116,438 females. As to age, 43,983 were under 14 years of age, 248,187 were between 14 and 45 years of age, and 19,545 were 45 years and older. As to illiteracy, 60,446 could neither read nor write and 1022 could read a little but could not write. As to amount of money brought, 39,071 had each $30 or over and 174,613 had each less than $30. The total amount of money exhibited to officers was $5,414,462. There were returned to their own countries within one year after their arrival 263. In addition to 796 paupers and 303 alien contract labourers debarred on the Canadian and Mexican borders, there were refused admission one idiot, 19 insane persons, 2599 paupers or persons likely to become public charges, 348 diseased persons, eight convicts, 82 assisted immigrants, and 741 contract labourers, making a total of 3798. The number of contract labourers debarred last year exceeded the number for the next preceding year by 77 per cent.

The Condition of the United States Army.

Surgeon-General Sternberg presents an interesting report of the health of the troops in his annual statement as to the losses on the field or in hospitals, the casualties, the medical service rendered to the army, attendance upon the sick and wounded, and other interesting data. The total mortality, both among the regulars and volunteers, from May 1st, 1898, to June 30th, 1899, was 6619; those killed on the field numbered 496; accidental deaths, 216; and those dying from fatal wounds received in action or gun-shot wounds, 202. The victims of fevers of various kinds far exceeded the number lost from other causes. Typhoid

fever proved fatal in 2774 cases; yellow fever claimed 185 victims; malarial fever, 476; pneumonia, 359; and diarrhœa and dysentery carried off 342. Touching upon the question of food supplies, the surgeon-general advocates a thorough knowledge of the matter before any change is made in the present army ration prescribed; the question of canned roast beef and refrigerated beef he mentions and affirms that there were but two complaints concerning these at the time that the matter was discussed. He incorporates in his report the opinion of medical officers in the army that the troops serving in the tropics should have less fat and more starch and sugar; and he also urges an increase in the medical corps. On this latter point his opinion is that the medical corps of the army was inadequate before the war with Spain, when he had but 25,000 men in the ranks and with multiplied forces they should increase the medical arm of the service as soon as practicable. Vacancies in the medical corps could be in a large measure filled by commissioned medical officers who volunteered during the war and have made great progress in familiarising themselves with a knowledge of military duties and have proved their fitness for the military services; this applies also to acting assistant surgeons; all of these should have the preference if they come within the established age limit. Camping grounds throughout the country are suggested, which should be ready for the mobilising of troops.

Nov. 20th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Legal Right to Answer Criticisms in the Medical Press.

THE law in France with reference to the liberty of the press gives any person attacked by, or in, a journal the right to compel such journal to publish an answer which may, if need be, be delivered as a writ. The answer is to be not of less length than the article complained of, is to be printed in equally bold type, and is to have an equally prominent place in the journal. This right is very frequently exercised in the political journals, but only rarely in the medical press. However, a Paris practitioner has just made use of his privileges under circumstances of evil omen for the liberty of criticism in the medical press. A Paris medical journal in its report of the proceedings of the Boulogne Congress published an abstract of a paper read at the congress by Dr. X, the subject being urethral stricture. In this paper he referred to his personal experience in treating this complaint and in the usual way commented upon the methods of other surgeons which naturally enough he considered inferior to his own. The Parisian practitioner, who had invented a urethrotome, which instrument, Dr. X considered, gave but very middling results, has compelled the journal which printed the abstract to publish a long rejoinder from himself in which he advocates his own superiority. The medical press of Paris is naturally rather uneasy at these proceedings and at the last meeting of the Medical Press Association a resolution was passed to find out some means whereby the liberty of criticism of scientific methods may be preserved apart from personal criticism which is the only class of criticism on which the law wishes to keep an eye.

Criticisms upon Incubators.

Incubators are to-day very generally employed in the Paris hospitals for the care of premature or weakly infants. M. Hutinel and M. Delestre have, however, recently communicated a paper to the Society of Obstetrics, Gynæcology, and Pediatrics in which the use, or rather the abuse, of incubators is sharply criticised. The object of an incubator is nominally to protect a weakly child against cold if it be so weakly as not to be able to keep up its own bodily heat by natural means. As a matter of fact, however, an incubator is a cultivation chamber where microbes multiply with lamentable ease and in which consequently children are infected with far greater ease than in the external air. M. Hutinel considers that when a child's temperature reaches 37° C. it is much better for the child to be kept in the air than in an incubator, for it will be found that cold is far more easy to fight against than are microbes. In his ward at the Foundling Hospital (Hôpital des Enfants assistés) M. Hutinel maintains the temperature of prematurely born children by hot-water bottles, leaving the windows on the sunny side of the ward open. Even if they fall ill he never places them in an incubator. By these means he has reduced the mortality among such children weighing less than four and a half pounds from 35 to 14 per cent. The only children then who should be placed in incubators are those in whom the temperature has not yet reached the normal—i.e., 37° C.—and incubators should be frequently disinfected, and when in use the temperature should be kept perfectly even.

Public Examinations for Hospital Appointments.

I have already referred to these examinations in my letter which appeared in THE LANCET of Oct. 28th. The examinations have given rise to a number of regrettable incidents, not the least of which is that a number of papers submitted by the candidates have been wantonly destroyed. I shall send you full particulars next week.

Obituary.

WILLIAM IRELAND DE COURCY WHEELER, M.D., M.CH. DUB., M.R.C.P., F.R.C.S. IREL.

THE much lamented death of Dr. Wheeler of Dublin, which, as we announced last week, took place on Nov. 25th at his residence in Merrion-square, removed from the ranks of the Irish medical profession a prominent and widely-known figure. Until quite recently he appeared to be perfectly strong and healthy, and, indeed, bore his years—for he was not a young man—exceedingly well. Typhoid fever, which has recently been so widespread in Dublin, proved, however, fatal to him after quite a sharp illness.

Dr. Wheeler was the son of the late Mr. G. N. Wheeler of Pembroke-road, Dublin, and Annesborough House, County Clare. He was born in Kildare and was of the same family as Sir Charles Wheeler-Cuffe. He received his medical education at the School of the Royal College of Surgeons in Ireland and at Trinity College, Dublin. In 1866 he was admitted a Licentiate of the Royal College of Physicians of Ireland and of the Royal College of Surgeons in Ireland, becoming a Member of the former College in 1879 and a Fellow of the latter in 1874. In 1870 he graduated as M.B., and M.D. at Trinity College, Dublin. Even as a student he was distinguished, for he gained the Purser Prize at the City of Dublin Hospital in 1865. In 1866 he held an appointment as a medical officer during the cholera epidemic in Dublin. His inclination being towards a military life he then entered the Royal Victoria Hospital, Netley, in due course became a staff-surgeon in the Army Medical Department and subsequently served during the Abyssinian expedition, obtaining a medal and a special letter of thanks from Sir C. Logan, the Director-General. While in the army he acquired some celebrity as a gymnast and for performing feats of strength, such as lifting a 120 lb. dumb-bell and elevating it with extended arm without a jerk. After some years he left the Army and settled in practice in Dublin, where he became a Demonstrator of Anatomy at the Royal College of Surgeons and surgeon and Lecturer on Clinical and Operative Surgery at the City of Dublin Hospital. At this time, when a large number of young surgeons from Ireland entered the army, Dr. Wheeler was well known as a most successful teacher of candidates for the competitive examinations which preceded their entrance to Netley. His increasing practice, however, soon obliged him to relinquish this class of work. In 1882 he became Vice-President of the Royal College of Surgeons in Ireland, and in the following year, which was the centenary of the College, he was elected President. Every honour that his profession could confer was given to him. He represented the Royal College of Surgeons in Ireland on deputations to the Ministers in charge of the Medical Acts Amendment Bill and he was selected to represent the College at the tercentenary of Edinburgh University. Dr. Wheeler was very widely known and very popular outside the ranks of his profession. In addition to numerous contributions to periodical medical literature he was author of "Experiments on Ventilation in the Wards of the Convalescent Division, Royal Victoria Hospital, Netley" (Army Medical Department Statistical, Sanitary, and Medical Reports, 1865), and "Experiments on Air of Hospital Ship in Abyssinia and Meteorological Observations" (Blue-Book, 1866). The funeral took place at Kilmeague, county Kildare.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THE General Medical Council continued its sittings on Thursday, Nov. 30th, and sat until Tuesday, Dec. 5th. Our report this week brings the proceedings up to midday on Monday, Dec. 4th, and will be completed in our next issue.

THURSDAY, NOV. 30TH.

The proceedings of the first two days of the session of the Council were reported in THE LANCET of Dec. 2nd. We now deal with the third day.

The Case of William Stewart.

The Council took up the consideration, adjourned from June 2nd, 1899, of the charges proved against William Stewart of Denton, near Manchester, registered in Ireland May 19th, 1887, as M.D., Mast. Surg. 1887, R. Univ. Irel., who had been summoned to appear before the Council to answer the following charge as formulated by the Council's solicitor:—

Complaint had been lodged with the Council by the Ashton-under Lyne District Medical Society in relation to the Denton and District Provident Dispensary by whom he (Stewart) was engaged as medical officer and by whom an unqualified person named Burgess was engaged or employed as his assistant. The complaint was that he (Stewart) associated with the said unqualified person in the practice by him (Burgess) of medicine and surgery and permitted him to carry on medical practice, and was party to his administering medical aid and treatment to patients as if he were a duly qualified medical man.

The REGISTRAR stated that at the conclusion of the deliberations in June the Council resolved:—

(a) That the Council do proceed at once to pronounce its judgment on the case.
(b) That the charge made against Dr. William Stewart has been proved to the satisfaction of the Council.
(c) That the further consideration of the charge proved against Dr. William Stewart be adjourned until the next session.

On Oct. 13th, 1899, Mr. Harold Hyde, solicitor, wrote on behalf of the Ashton Medical Society representing that the society did not wish to press the case further and requesting the Council to allow them to withdraw from further proceedings; and having been told that the society should formally communicate their wish in writing he subsequently supplied the following resolution, passed at a committee meeting held on Oct. 24th, 1899:—

That the Ashton-under-Lyne and District Medical Association, being satisfied that the grounds upon which their complaint to the General Medical Council was laid against Dr. William Stewart of Denton, near Manchester, having now been removed, by reason of the said Dr. Stewart having discharged the unqualified assistant referred to in the complaint, and also having resigned his appointment in the Denton Provident Dispensary, and taken proper steps to effectually terminate his connexion therewith, are of opinion that the objects of the association in laying such complaint have been fully gained; that the complaint be not further prosecuted on the adjourned hearing to be held on the 30th day of November next; that the members of this association hereby record their appreciation of the careful and patient hearing given to the above complaint by the General Medical Council; that the General Medical Council be and they are hereby prayed to take the above circumstances into their favourable consideration on the adjourned hearing; and that a copy of this resolution be forwarded to the Registrar of the General Medical Council.

F. J. ROBERTS-DUDLEY, President.
JOHN WILLIAM TALENT, Secretary.

The following letter had been received from Dr. Stewart's solicitors:—

Alma Chambers, 19, Dickinson-street, Albert-square,
Manchester, Nov. 8th, 1899.

DEAR SIR,—*Re* Dr. Stewart, Denton. Our client, Dr. Stewart, desires us to write and inform you that, in accordance with the advice of the Council in May last, he has considered his position and immediately on his return from London, on his request, the Denton Provident Dispensary dispensed with the services of Mr. Burgess. Since that time our client has become a member of the Ashton-under-Lyne Medical Association and has given notice terminating his position of medical officer to the Denton Provident Dispensary and will in future continue in private practice only. We are also given to understand that the Ashton-under-Lyne Medical Association will not be represented at the next meeting of the society at the end of this month in connexion with this matter. Under the circumstances we are desired to ask you whether it will be necessary for our client to be in attendance at the next meeting of the Council. If so, what day and time.

We are, yours faithfully,
The Registrar of the General Medical Council. BOND AND SON.

Dr. STEWART offered himself for examination, but no member of the Council questioned him.

The PRESIDENT after the Council had sat *in camerâ* for a few minutes announced to Dr. Stewart that the Council had had under consideration the resolution passed by the Ashton-under-Lyne and District Medical Association. They had also had under consideration the letter from his solicitors. They were glad to find that Dr. Stewart had reconsidered his position in connexion with this unqualified assistant and that he had complied with the wishes of the Council in the matter, and so the Council had come to the following resolution:—

Having further considered the charge proved against you the Council does not judge you guilty of infamous conduct in a professional respect.

The case therefore against Dr. Stewart was dismissed.

Restorations to the Register.

The Council sitting *in camerâ* resolved, on the recommendation of the Executive Committee, to restore to the Medical Register the name of Robert Masters Theobald removed on Dec. 3rd, 1894, and the name of George Hamilton Wyse removed on May 26th, 1898.

The Case of Clement Maguire Kershaw.

The Council then proceeded to consider the case of Clement Maguire Kershaw adjourned from June 3rd, 1899. Mr. Kershaw was registered in the Dentists Register on July 22nd, 1891, under the 37th section of the Dentists Act without a diploma, his registered address being Newtown, North Wales, and the Dental Committee to whom the case had been referred to ascertain the facts reported that he had employed an unqualified person, Victor Neighbour, who had been allowed to extract teeth, insert plastic fillings, see patients independently, and do more than fell within the province of a mechanical assistant. The Council, after hearing the case in June, adjourned the further consideration of it until the present session.

Mr. GERMAINE, speaking for Mr. Kershaw, said that his client, after what took place in June, had dispensed with the services of Mr. Neighbour and entered into an agreement of employment with Mr. Samuel Dunn, who held the diploma of the Conjoint Board of the Colleges of Physicians and Surgeons of Glasgow.

The PRESIDENT: Is Mr. Dunn on the Register?

Mr. GERMAINE said that the diploma was dated April 8th, 1899, and he was informed that although it was a diploma which entitled Mr. Dunn to be registered the registration had not actually taken place. The resolution of the Council was directed against practitioners who employed persons "not registered or not qualified to be registered" and Mr. Dunn was undoubtedly qualified to be registered.

The PRESIDENT said that this was a matter of some importance, not so much as regarded Mr. Kershaw as regarded Mr. Dunn. He thought Mr. Dunn should know that he ought to register because he appended to his name certain letters, L.D.S., implying that he was a Licentiate in Dental Surgery, and the appending of such letters to his name when he was not on the Register did not seem to be in conformity with the Dentists Act.

Mr. GERMAINE undertook to see that the matter was mentioned to Mr. Dunn and no doubt he would take steps to have his name registered. It was, however, a matter which did not affect Mr. Kershaw, and he hoped the Council would now relieve Mr. Kershaw from the anxiety from which he had been suffering. He assured the Council that Mr. Kershaw had no other desire than to be loyal in every way to its wishes.

The PRESIDENT said that a letter had been received from Mr. Maurice, the practitioner who raised the complaint. Perhaps it would be well to have it read.

The REGISTRAR said that the solicitor to the Council had received the following letter, viz.:—

122, Harley-street, Cavendish-square, W.,
Nov. 4th, 1899.

DEAR SIR,—I have changed my address from Oswestry to the above, and, although your letter was forwarded to me I regret that being in an unsettled state I overlooked it.

I do not intend to offer any statement at the adjourned hearing of the Kershaw case, but deem it proper to tell you that I have heard, and have no reason to doubt, a rumour to the effect that Kershaw has parted with his unregistered assistant.

Since the beginning of these proceedings I have learnt that the practice with which Kershaw was charged is a very prevalent one; and, therefore, while rejoicing that it has been put a stop to in one case at least, I hope Kershaw will not suffer any punishment for doing what is also done with impunity by many men more highly placed in the profession than he is

Yours faithfully,
F. W. Farrer, Esq. (Signed) A. MAURICE.

After the Council had deliberated in private for a time

The PRESIDENT addressed Mr. Kershaw as follows: The Council has deliberated upon your case. You have heard read the report by the Dental Committee upon the facts of the case and these facts obviously are admitted by you and your counsel. The facts are undoubtedly grave. They show a condition of things which the Council eminently disapproves of, but in view of this being one of the first cases in which such a matter has been referred to it the Council has taken a merciful view and it has come to this resolution, that having further considered the charge proved against you the Council does not judge you guilty of infamous conduct in a professional respect. The case, therefore, is dismissed.

The Case of Henry Louis Goodman.

The Council next dealt with the case of Henry Louis Goodman of Ludgate-hill.

The report of the Dental Committee on the case was in the following terms, viz. :—

The complaint against Henry Louis Goodman having been referred to the Dental Committee to ascertain the facts the Dental Committee beg to report as follows:—

The Committee find that Henry Louis Goodman was on April 10th, 1899, convicted in the name of Louis Henry Goodman of the following misdemeanour—namely, that he did unlawfully obtain by false pretences from James Kimber an order for the payment of the sum of £25 with intent to defraud and was thereupon ordered to be imprisoned and kept to hard labour in Her Majesty's Prison, Pentonville, 18 calendar months.

The evidence before the Committee consisted of a certified copy of such conviction. WILLIAM TURNER, Chairman.

On the motion of the PRESIDENT it was agreed that Henry Louis Goodman having been proved to have been convicted of a misdemeanour the Registrar be directed to erase his name from the Dentists Register.

The Case of Richard Thomas Williams.

The Council proceeded to the consideration of the case of Richard Thomas Williams of Cwmavon, Port Talbot, Glamorganshire, registered as Lic. R. Coll. Phys. Edin. 1889, Lic. R. Coll. Surg. Edin. 1889, Lic. Fac. Phys. Surg. Glasg. 1889, who had been summoned to appear before the Council to answer the following charge as formulated by the Council's solicitor:—

That, being a registered medical practitioner, he permitted and enabled an unqualified person named J. C. Davies, under cover and with the aid of his name, qualifications, and presence, to administer treatment to patients and do acts which ought properly to be done only by duly qualified and registered practitioners, and to carry on medical practice as though he were duly qualified.

The complainant was James Herbert Powell of Cwmavon, in the parish of Michaelstone-super-Avon, in the county of Glamorgan, registered with the triple qualifications of Scotland.

Mr. Williams was represented by Mr. Eldon Banks, his counsel, Mr. Moses Thomas, solicitor, of Aberavon, and Mr. T. D Jones, solicitor, of 36, Essex-street, W.C. Mr. J. C. Davies, the unqualified assistant referred to, attended as a witness, and Dr. Mumford also attended in order to give evidence as to the state of Mr. Williams's health. Mr. Powell attended in support of his complaint, together with Mr. Arthur Powell, his counsel, and Mr. Evan Evans, solicitor. Mr. William Oxley and Mr. Thomas Davies also attended as witnesses.

Mr. ELDON BANKS stated that Mr. Williams had come up to London in order to attend the hearing of his case, but that he was unwell at the time and had been worse since his arrival.

Dr. MUMFORD informed the Council that Mr. Williams was suffering from tonsillitis and was unfit to leave his bed.

The PRESIDENT thanked Dr. Mumford who then withdrew.

Mr. ARTHUR POWELL, in opening the case, said that Mr. Williams carried on practice at Cwmavon, a place with from 8000 to 10,000 inhabitants, and he had surgeries in two of the neighbouring villages. He was medical officer to certain friendly societies. He employed a dispenser named Griffiths and down to Oct. 13th or 14th he employed Mr. J. C. Davies as his assistant, and the charge in this case was that Mr. Davies, being an unqualified man, had been employed by Mr. Williams contrary to the resolution of the General Medical Council of November, 1897. Mr. J. H. Powell, who made the complaint, was a medical man in the district, and he desired the Council to be informed that though he was the complainant he was in no way actuated by any feeling of vindictiveness against Mr. Williams. On the contrary, he was extremely sorry that he had not got such answers to letters of his as he expected from Mr. Williams and that this inquiry should be necessary. As regards Mr. J. H. Powell, the result desired by him had already been attained, for Mr. Davies ceased to be employed by Mr. Williams on Oct. 13th, Mr. Williams having put in his place Mr. Mackay who was duly qualified. Now that seemed to be what Mr. Powell wanted. His desire was that there should be no irregularities in the district in which he practised. However, he was present to state, if the Council thought it necessary to hear him, that the Mr. Davies in question had been seen visiting from house to house with a list of patients in his hand and seeing patients. That was not disputed. What was disputed was that Mr. Davies saw those patients as a medical man. What Mr. Davies said was that he saw with the "eyes" of Mr. Williams and only that he might report to Mr. Williams. Mr. Williams was extremely popular in the district and the complainant had found it extremely difficult to get any of the people to state what they knew. A detective from Cardiff (Mr. Oxley) had made various investigations and he would tell the Council that he had seen Mr. Davies going from house to house, being informed by the people seen by him after Mr. Davies left that Mr. Davies was attending them. He did not know how far the Council would receive evidence such as would not be received in a court of law, or evidence that would be required in a court of criminal jurisdiction, showing that any offence had been committed, but in addition to the affidavits forwarded to the Council he had certain certificates granted to members of friendly societies in the district. A number of these certificates were signed by "Mr. Davies, *pro* R. T. Williams, Surgeon," and at least one other by "J. C. Davies, Surgeon." He (counsel) had not the original of the latter, that having been retained by the secretary of the society. In conclusion, counsel said that such was the nature of the case and such the nature of the evidence he would have to give them, but he had to state that so far as the complainant was now concerned he would be quite content that the case should not proceed any further if the Council were willing that it should not. Mr. J. H. Powell had no desire to be on bad terms with the medical men in his own district, and he felt that though there were no doubt grounds for the gravest suspicion the evidence that could be afforded was not of the most direct nature.

The Council did not accept the offer not to proceed further with the case. Counsel read declarations showing that it was well known that Mr Davies had acted as Mr. Williams's assistant, that he had attended numerous patients, that he had given certificates, and that, although unqualified, he was called "doctor."

The complainant, Mr. WILLIAM OXLEY, ex-detective sergeant of the Cardiff police, and Mr. THOMAS DAVIES were heard in support of the complaint. During the examination the detective stated that he first heard of the matter by a letter he had received from Mr. Roberts, who was Mr. J. H. Powell's partner, and subsequently he had gone to Cwmavon, where he had seen both Mr. Roberts and Mr. Powell. He was told at that visit there were rumours about that there was an unqualified person visiting in the village and he was asked to take observations and follow him about. He was a perfect stranger in the district, but on his visit in July last he heard from several people that Davies was generally known as "Doctor Davies."

Mr. ELDON BANKS, in opening the case in defence, read a declaration of Mr. Davies which showed that he was a *bonâ-fide* medical student, that he had gone through four years' study in Glasgow University, and passed through all the professional examinations except the final. The declaration further showed that Mr. Davies denied attending any case which required professional discretion and skill, that the public knew that he was unregistered and unqualified, while as regards certificates he had simply acted as clerk to Mr. Williams. When he went to the surgeries outside Cwmavon he went there simply as dispenser. Mr. Banks next read a declaration made by Mr. Williams, the accused practitioner, in which he fully explained that in no way had he attempted to evade the Council's regulation as to the employment of unqualified assistants. How it came to be that Mr. Davies was employed by him at all was this: he was looking for an assistant and he saw Mr. Davies's advertisement seeking employment in the same paper. He got Mr. Davies to come to him but on the distinct understanding that he was to leave so soon as Mr. Williams was able to get a qualified man.

The Council at this stage decided that the further hearing

of the case should be postponed till the following day (Friday) and they then adjourned.

FRIDAY, DEC. 1ST.

The Council resumed its session to-day, Sir WILLIAM TURNER, President, being in the chair.

Application for Restoration to the Medical Register.

For two hours the Council sat *in camerâ* considering the report of the Executive Committee on certain applications for restoration to the Medical Register. When the public were re-admitted the PRESIDENT announced that the Council, having carefully considered the application of Robert Alexander Douglas Lithgow, had resolved that the application be refused.

The Case of Richard Thomas Williams.

The Council proceeded to the adjourned consideration of the case of Richard Thomas Williams of Cwmavon which had been partly heard on the previous day. Parties were represented as before, Mr. Williams being again too ill to attend.

The PRESIDENT informed Mr. Banks that he was in possession of the Council.

On Mr. Banks rising,

Dr. MACVAIL moved that the Council go into *camerâ* to consider an important matter in relation to this case.

Sir RICHARD THORNE seconded and the motion was agreed to.

About 20 minutes later the public were re-admitted and the case was again called. However, before anything could be done relating to it

Sir J. BATTY TUKE rose and said: I beg to ask you, sir, whether the evidence brought forward up to the present moment is such as to make it worth Mr. Banks's while answering.

The PRESIDENT: Order, order.

Mr. BANKS proceeded to read declarations in favour of his client.

Mr. J. C. DAVIES was then called as a witness and in answer to Mr. BANKS he said that his declaration was correct. When signing certificates he did not put "surgeon" after his name. He had seen cases, but he only went to see such as did not require professional attendance and skill. In replying farther to Mr. Banks he said that Mr. Williams made it an invariable practice to call first to see cases and if witness went to them he never prescribed.

In replying to questions by members of the Council witness said that he received only a nominal sum for the assistance he gave to Mr. Williams and he got that for doing dispensary work. His age was about 30. It was in 1887 that he began his medical studies as a student, but previously he had been an apprentice.

Mr. BANKS addressed the Council and Mr. ARTHUR POWELL was heard in reply.

The Council deliberated on the case in private for a few minutes. On the public being re-admitted to the hall

The PRESIDENT said: I have now to intimate that the charge made against Richard Thomas Williams has not been proved to the satisfaction of the Council. The case is closed.

The Case of William Matthews Joyce.

The Council proceeded to consider the case of William Matthews Joyce, registered as of 25, Cattell-road, Small Heath, Birmingham, with the triple qualification of Scotland, 1889, who was summoned to appear on the following charges:—

(*a*) That he was on July 10th, 1899, at the Warwick Borough Sessions, convicted of being drunk and disorderly. (*b*) That he was on Nov. 13th, 1899, at the Warwick Court-house, convicted of misdemeanour—namely, of assaulting and beating Ellen Simpson.

Mr. Joyce attended and went into the witness-box.

In answer to the PRESIDENT he stated that he did not get the Council's letter in time to reply to the second charge. This second charge was unexpected. He had replied by letter to the first charge. Asked if he could explain how he came to be convicted and sentenced to 14 days' imprisonment on the charge of being drunk and disorderly he stated that he could not attend the court. He was in Ireland at the time. Had he been able to appear the sentence would likely have been only a fine of 5*s*. He was imprisoned for 14 days, but only one Sunday. Asked as to the second charge and whether he had anything to urge in respect of it he said that if the Council wished to review the whole case or set of circumstances they would find that the second case was merely a corollary of the first.

In answer to Dr. MCVAIL the witness said that the cases arose out of a family quarrel.

The letter of explanation with regard to the first charge was at Mr. Joyce's request then read. In it he denied *in toto* the charge of drunkenness, having had only three glasses of ale on the day named. As to the disorderly conduct an accusation had been made against him and he had used language of a more heated character than he should have done.

Questioned as to the second charge Mr. JOYCE explained that Ellen Simpson and her mother had come to his house and he had simply given her a slap and pushed her away from his door. His fine, with costs included, amounted to £2 14*s*. and the alternative was a month's imprisonment. He had paid the fine.

After the Council had deliberated on the case

The PRESIDENT said he had to tell Mr. Joyce that the Council considered his conduct to be most improper and entirely unworthy of a professional medical man. They, however, were disposed at this time to take a merciful view of the case and not to inflict the severe penalty which it was within their right and power to do. But they called upon Mr. Joyce to appear before them in the month of May next and they would then require that he should produce evidence that between this and the month just named Mr. Joyce's conduct had been that which a gentleman ought to show.

Mr. JOYCE wished to say that he was going to leave Warwick.

The PRESIDENT: We have nothing to do as to where you are to set up; you have got to conduct yourself properly; go away.

The Case of Frederick William Kirkham.

The Council next dealt with the case of Frederick William Kirkham of London-street, Chertsey, registered Lic. R. Coll. Surg. Edin. 1882, and Lic. R. Coll. Phys. Edin. 1889, who had been summoned to appear before the Council on the following charge:—

That he was on Oct. 26th, 1899, at the Central Criminal Court, convicted on several indictments charging him with fraud.

The charge having been read the Council directed the Registrar to erase the name of Frederick William Kirkham from the Medical Register.

The Council adjourned.

SATURDAY, DEC. 2ND.

The Council met again to day, with Sir WILLIAM TURNER in the chair.

The Society of Apothecaries of London: Licentiates and the Title they may Use.

The REGISTRAR read the following communication from the Society of Apothecaries in regard to the recent judgment bearing on the description that may be legally assumed by their Licentiates, remitted to the General Medical Council by the Executive Committee:—

London, E.C., Oct. 10th, 1899.

MY DEAR SIR,—I am directed by the Society of Apothecaries to make the following communication to you and to ask that you will be so good as to place it before the Council for its consideration in November.

The Council will readily understand that what is known as the Hunter Case has during the past year occupied much of the attention of the governing body of the Society in its three aspects—namely, the original institution of the proceedings against Mr. Hunter, the attitude of the Council during those proceedings, and the decision of the judges of the Queen's Bench Division.

It is with the last only of these three aspects that the present communication deals.

The Society contends, and is advised by eminent counsel, that the decision is "erroneous," and even if this be not admitted it will at least be allowed to be unsatisfactory.

A perusal of the delivered judgment will show that the reasons assigned by one of the judges for his decision were based on most imperfect knowledge of the subject, while the other judge, whose observations during the arguments had apparently been favourable to the contention of the Society, eventually decided against it with doubt and hesitation.

The decision was rendered still more unsatisfactory by the fact that the Medical Council, having issued separate summonses against Mr. Hunter—(1) for calling himself a physician, and (2) for calling himself a surgeon—only proceeded in respect of the first of them; so that the case did not come before the court in its entirety and the right of the L.S.A. (1886) to call himself surgeon remains undecided.

The Society has not considered it sufficient to take the opinion of Mr. Haldane, Q.C., M.P., to whom reference has already been made as advising that the decision of the judges is "erroneous," but has also taken the opinion of Sir Edward Clarke, Q.C., M.P., who advises the society "that the L.S.A. (1886) is entitled to describe himself as 'Physician' or 'Surgeon' or both, and that the Society of Apothecaries

is justified in so advising their Licentiates, notwithstanding the decision in the case of Hunter *v.* Clare."

He is further of opinion "that should the question again be raised in the courts the case of Hunter *v.* Clare would not of necessity be held to be a binding authority on this point, inasmuch as the conviction of the appellant was quashed on other grounds and the opinions expressed by the court as to the rights of the L.S.A. were, under the circumstances, immaterial to the issue."

In advising the Society as to the best means of getting the question properly settled Sir Edward Clarke says:

"I advise the following course, if practicable. An action should be brought by a medical practitioner (M.R.C.S. and L.R.C.P.) claiming an injunction to restrain a L.S.A. (practising in the same neighbourhood) from describing himself as 'Physician and Surgeon,' to the injury of the plaintiff's practice. The pleadings could be framed so as to make the defendant's right so to describe himself the only issue in the action, and the question might then be determined (if necessary) by the Court of Appeal or the House of Lords."

The Medical Council will agree that no medical practitioners would be willing to adopt the suggestion made by Sir Edward Clarke unless guaranteed against all expenses.

It would seem only reasonable under all the circumstances of the case that the Medical Council and the Society should guarantee the expenses of the plaintiff and defendant respectively in the proceedings which are suggested, and that whatever the result may be each party should pay their own costs.

If such an arrangement were made a suitable case would soon be found and a friendly action instituted.

A case was, in fact, suggested some time ago by the solicitor to the Council, but until the principles on which any case should be tried had been settled between the Medical Council and the Society the Society decided that it was inexpedient to take proceedings.

In conclusion, I am directed to state that the Society emphatically disclaims the idea of wishing to assist its Licentiates to appropriate any title belonging exclusively to any other licensing body.

What it desires is, with the coöperation of the Medical Council, to get an authoritative exposition by Court of Appeal of the 40th Section of the Medical Act, 1858, and to permanently set at rest the vexed subject of medical titles.

Your very faithful servant,
JAMES R. UPTON, Clerk to the Society.

Sir William Turner, President of the Medical Council, &c.

Mr. BRUDENELL CARTER moved:—

That the letter of Mr. Upton, on the part of the Society of Apothecaries, on the subject of the use of the titles "physician and surgeon" be referred to a special committee with power to take legal advice and to instruct the solicitor to take such steps as may be necessary for the purpose of obtaining a decision on the question raised in that letter.

In bringing forward this motion he said he would desire at the very commencement to lift it entirely out of the range and scope of a question affecting an individual corporation and put it upon the wider basis of being a question which very closely concerned a very large number of medical practitioners. A vast number of the Licentiates of the Apothecaries' Society, of whom he was one, who had no other medical qualification than that title afforded, had felt that they must call themselves something, that they could not call themselves "apothecaries" simply because the word was archaic and conveyed at the present time no meaning of any sort or kind to anybody, and they found in the English language the word "physician," a word which from time immemorial had been used to signify a practiser of the healing art without the smallest reference to the body from whom the qualifications were derived. He had a letter a portion of which the Council would perhaps allow him to read. It was a letter from the most eminent authority in England on a question of this kind—Dr. Murray, the editor of the Oxford Dictionary. Dr. Murray said: "The word was taken by us from Norman French in the thirteenth century in the form *fisicien* and in its present sense of practiser of the healing art, medicus; the only sense which it had in contemporary French. It has never had any other sense in English, though one or two writers have expressed a desire to abolish this and to convert the word back to the sense of Latin *physicus*, Greek *φυσικός*, student of nature, naturalist, natural philosopher. Hume did this, but only as an etymological fancy. In French it has been different; *médecin* has successfully ousted *physicien*, and the latter in modern French since the sixteenth century has meant physicist. If you will turn to Du Cange's Lexicon of Mediæval Latin you will find that the regular mediæval Latin sense of *physica* is medicine, and *physicus* equals *medicus*. But in classical Latin and as late as the Latin lexicons come down—i.e., to the fifth century or so, *physica* in Latin literature meant natural science and *physicus* a physicist. What you have to do, then, is to show how Latin *physicus* and *physica* passed between the fourth or fifth and, say, the eighth or ninth centuries, during the very midnight of the Middle Ages, from the ancient to the mediæval and modern sense. This is an inquiry that lies far away behind the scope of an English or even a French dictionary; it is part of the general history of the Latin language during the period of the break up of the Roman empire and civilisation, for which perhaps no materials exist, and all that can be said is that the change took place and was a very natural and intelligible one. I have little doubt that even in the third century the common peasant of Italy or Gaul thought a *physicus* must know something about the influence of stars and planets and mysterious influentias or influenzas generally and about the position of bones and virtues of herbs, the only practical use of *physica* to him, and so thinking the *physician* a *medicus* called the *medicus* a *physicus*. Does not the ignorant nineteenth-century Englishman call a drug-seller a chemist for the same reason and does not the drug-seller find it profitable to call himself a chemist, which he is much less than a baker or a whisky maker is? Well, when the Roman civilisation perished all the literary class (as a class) perished and the peasant survived, and his Latin became the language of the modern world. He did not call in a *medicus* to use his *medicina* to cure his bad *crures* or his aching *caput* but got a *physicus* with his *physica* (*fisicus* and *fisica* he wrote them when he could write) to attend to his *gampas* (pins or hockey-sticks) or his *testa* (shell or cocoa-nut). The substitution of *physicus* for *medicus* is then only part of the great revolution; but it lies a long way anterior to English and to the Englishmen of the thirteenth century who accepted *physicien* or *fisicien* as quite the fashionable courtly learned title for their own leche or leech. Of course, modern etymologists going back to the original Latin and Greek sense are apt to think the words ought to have the original sense, which is to undo history, and pull down the Tower, St. Paul's, and Westminster, to say nothing of Cannon-street Station, in order to restore Roman London. (They do so at Athens and Rome.)" Mr. Brudenell Carter, continuing, said he thought that not only was the word "physician" long anterior to the existence in this country of any qualifying body as a title for the practiser of the art of healing, but he thought there was no other word in the language equivalent to it, and if a qualified medical man was not entitled to call himself a physician he did not see what he could call himself. They had an analogy in such a word as accountant. The word "accountant" was in common use and signified a man skilled in accounts. It was also in use to describe a member of a definite profession who was called a "chartered accountant." He thought it would be admitted that there was a grievance here inflicted upon a large number of medical practitioners, and, strongly as he disapproved in a general way of this Council being a prosecuting body under Section 40 of the Act, he did think that an exception should be made in a case where proceedings under Section 40 might help to clear up a doubt that was a source of embarrassment to a profession which it was more or less the business and duty of this Council to assist in so far as they could do so. Mr. Upton's letter did not entirely satisfy him and he referred the question to the President of this Council and to Mr. Muir Mackenzie and he had a letter from the latter which he did not think was intended to be private but which was marked private on the envelope. The general result, however, of Mr. Muir Mackenzie's observations was that there was considerable doubt as to the legal power of this Council to use or pledge its revenues in the way suggested by Mr. Upton, but there was no difficulty at all in the way of that Council undertaking such a procedure as this—a formal prosecution to be instituted and the magistrate to be asked to state a case under Section 13 of the Summary Jurisdiction Act, 1879, which case would go straight to the Court of Appeal or even to the House of Lords. He believed that that procedure would cost as little as it was possible for any lawsuit raising an important point of law. He would ask the Council to pass this resolution and empower the special committee to take action for the purpose of endeavouring to obtain a solution of the difficulty now before them.

The PRESIDENT pointed out that the motion proposed that the committee should have power to take legal advice and to instruct the solicitor to take steps and asked Mr. Brudenell Carter how far he contemplated the instruction should extend.

Mr. BRUDENELL CARTER said that his own idea of the instruction would be that the committee should have power to instruct the legal advisers to institute before the magistrate the prosecution referred to and that then the magistrate would practically be asked to inflict a small penalty. It would practically be an undefended action before the magistrate and the magistrate would be asked to state a case.

The PRESIDENT: Would the solicitor, assuming this motion to be carried, regard himself as having power to follow the case into the higher courts?

Mr. BRUDENELL CARTER: That would depend upon the committee, I should think.

The PRESIDENT: Surely that is throwing upon the committee a great responsibility.

Mr. BRUDENELL CARTER said that if the case were stated by the magistrate as suggested by Mr. Muir Mackenzie then it would go direct to the Court of Appeal, and it would be a question for the Committee whether they should instruct counsel to appear in the matter or not. The committee might obviously instruct Mr. Muir Mackenzie or other counsel to defend one view of the case. Of course, it might be that the committee found it possible to put the question before the whole Council, for these legal proceedings were not conducted with any great rapidity.

Sir JOHN BATTY TUKE, in seconding the motion, said that while he probably held different views from Mr. Carter as to the importance of the judgment delivered by the judges he supported him on this occasion simply because it was a question which had to be settled somehow or other, and he thought it the duty of that Council to assist in every way they could to settle the question, inasmuch as it arose out of a somewhat serious mistake of the Council. Whatever blame was attachable to the Council for the mistake must be shared equally by each member of the Council present at the time the resolution was come to. He could not help thinking and saying that it arose out of the practice of huddling up the important and proper business of the Council till the closing sittings of the session. Such mistakes were likely to be repeated if they continued to allow academic discussion in the early and best days of the session and relegated to the end this really important business.

Mr. HORSLEY moved an amendment to make the motion read thus:—

That the letter of Mr. Upton, on the part of the Society of Apothecaries on the subject of the use of the titles "physician and surgeon" be referred to a Special Committee for report to the Council.

It was assumed, he said, that the Licentiate of the Apothecaries' Society was not entitled to call himself a "physician" after the decision of the High Court. Now he ventured to submit that that was not the correct way of putting the matter. In his letter Mr. Upton said that the opinion of Sir Edward Clarke had been taken and the opinion amounted to this, that the decision in the case of Hunter *v.* Clare was worthless, and surely the same opinion would be come to by any layman who read the detailed account of the decision. If they agreed that this case was worthless, were they not in exactly the same position as before the case occurred and had not the Licentiate of the Apothecaries' Society, in the recently celebrated words, a clean slate upon which he could write any title he liked? Under the Act of 1886 he was registered as a practitioner of medicine, surgery, and midwifery, and if they put out of their way this case of "Hunter *v.* Clare" they found the Licentiate of the Apothecaries' Society in exactly the position in which he was before the case occurred. He ventured to say that under no circumstances was this Council justified in spending the money of the profession in going to law upon this matter. He could not see that they were justified unless the Council had had an opportunity of formulating their views because, after all, their responsibility for the money of this Council depended upon what they thought and what they alone thought.

The PRESIDENT: Subject to the provisions of the Act.

Mr. HORSLEY said quite so, and the Act put them there for the purpose of thinking what they should do with the money. Undoubtedly the spending of the money was entirely placed in their hands. They had to report to Parliament what they did with it, but the spending of the money was in their hands. The motion of Mr. Carter proposed that the solicitor of the Council should take such steps as might be necessary for carrying out the suggestions made by Mr. Upton on behalf of the Society of Apothecaries. Of course, it was easy for Mr. Upton to come here and to ask them to pull the chestnuts out of the fire for the Society.

Mr. BRUDENELL CARTER: I am sorry to interrupt but the words are "for the purpose of obtaining a decision on the question raised in that letter."

Mr. HORSLEY said he was coming to that. But the words he had used were perfectly descriptive of the situation. The members of the Court of Assistants, or whatever they were called, of the Society had decided to send them this letter. The Licentiates of the Society had not met in general assembly to say that their interests and rights were imperilled by this decision and it was not they who asked the Council to do this and spend their registration fees, but a small body of men. He could, of course, see that it was the opinion of these gentlemen that this was an unsatisfactory state of things and that it might damage the Society of Apothecaries if it went on, but that was not the affair of this Council. The welfare of the Society of Apothecaries was not their business. What this Council had to do was to make up their minds first what was the exact meaning of the word "physician" before they thought of spending any money upon this matter. This Council had never had before it the discussion of the question whether a Licentiate of the Society of Apothecaries was or was not entitled to call himself a physician under the Act of 1886. Even the judges in the case of Hunter *v.* Clare were not certain whether the word "physician" was a general or a special word. His view was that until they had had a thorough opportunity to inquire into this subject, which he admitted to be important, and had settled it amongst themselves, this Council should not spend a halfpenny of the money of the profession upon it. He agreed with Sir John Batty Tuke that the Council in the specific instance of Hunter made a serious mistake, but why did they make that mistake? They made it by not making up their minds beforehand. They had never had an opportunity of discussing the question and therefore in the case of Hunter *v.* Clare the legal representative in the court spoke as though the word "physician" could only be used by a Licentiate of the Royal College of Physicians. That meant that no university graduate unless he happened also to have some diploma of the Royal College of Physicians could call himself a physician. Their legal representative was never instructed by the Council to say such a thing in the court or to imply it. On these grounds he ventured to submit that the second part of Mr. Carter's motion might with advantage be omitted.

Dr. BRUCE, seconding the amendment, said that in his opinion the proposal of Mr. Carter was too large an order. He thought they would best deal with this important subject by having a little time to consider it and having a report from the proposed committee.

Dr. MACALISTER pointed out that if they undertook to prosecute a given practitioner they might go before a magistrate who might say that the decision in the case of Hunter *v.* Clare was not binding and dismiss the charge. Then they should be no further forward. Or it might be that the Council were compelled strongly to take the line of maintaining the view of the High Court, which he should regard as a very unfortunate position for the Council. He thought the best course would be to have the matter threshed out in the first instance by a committee and he would suggest that the committee have power to take legal advice.

Sir DYCE DUCKWORTH said he did not regard this question as at all pressing or burning at the present moment and put forward the idea that in time the problem might be solved to a large extent by the Apothecaries' Society combining with the other two licensing bodies in London.

Dr. ATTHILL also spoke in favour of inquiry by a committee.

Mr. BROWN said that he wished to explain why he, a Licentiate of the Apothecaries' Society, intended to vote in this matter against the representative of the Society. His reason was that he believed there was no authority in the Medical Act for this Council prosecuting a registered practitioner. Mr. Brown then proceeded to read the preamble of the Act of 1858 and afterwards the 40th Section of that Act.

The PRESIDENT called upon him to speak to the amendment before the Council, which was very specific.

Mr. BROWN said he was surely entitled to quote the Act.

The PRESIDENT: I must ask you to stick to the point. Your speech is an expensive speech to this Council and it is not the first expensive speech we have had this session.

Dr. MACALISTER: I move that the question be now put.

Dr. BRUCE: I second that.

Mr. BROWN: I have finished all I wish to say.

Mr. HORSLEY said he desired to explain that his amendment was devised as a simple way of providing that the Council should have the advantage of having the question threshed out by one of their own committees before they met to discuss it. If afterwards they found that the difficulty was a purely legal one and required legal opinion then they could take legal advice, but he submitted that at present they were not ripe to take legal advice. He therefore adhered to the amendment in the form in which he had proposed it.

The amendment was carried by 22 votes to 5, two members declining to vote and one member being absent.

Dr. MACALISTER moved to amend the amendment, which now became the substantive motion, by inserting the words "with power to consult, if necessary, the legal advisers of the Council."

Mr. BRUDENELL CARTER seconded this amendment.

Dr. MCVAIL expressed the view that the committee should report to the Council before legal opinion was taken.

Dr. MACALISTER said that the committee might come to the conclusion that one form of legal action was desirable if it could be taken without consulting the Council, and the committee could give them no advice upon this without consulting the legal advisers.

Dr. BRUCE said that the first question that would come before the Committee was whether this was a matter for the Council or for the Apothecaries' Society, and they did not need legal advice for that.

The amendment proposed by Dr. MACALISTER was rejected by 18 votes to 8, one member declining to vote and three members being absent.

The proposal of Mr. Horsley was then put from the chair and carried by a large majority.

The PRESIDENT said it was for Mr. Horsley now to nominate the special committee.

Mr. HORSLEY, in response to this invitation, said he should be happy to leave the nomination in the hands of Mr. Carter who had introduced the matter.

Mr. CARTER protested that he had no responsibility now and reserved to himself the fullest rights of criticism.

After some discussion it was arranged that the matter should be left in the hands of the President.

Death Certification.

The PRESIDENT announced that he had arranged the *personnel* of the deputation which was to wait upon the President of the Local Government Board with regard to the question of death certification. The deputation would consist of Dr. Glover, Sir Dyce Duckworth, Mr. Brudenell Carter, and himself.

Penal and Disciplinary Powers.

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, the Council agreed to receive and enter upon their minutes the following further report by the President on the steps taken by him to have Section 29 of the Medical Act, 1858, amended so as to secure increased powers for penal and disciplinary purposes:—

On June 3rd, 1899 (Minutes, vol. xxxvi., p. 51), the President reported that in order to meet the objections raised by some of the medical authorities in regard to the suggested amending clauses that were sent for their approval in November, 1898 (see report, dated May 29th, 1899), Mr. Muir Mackenzie was requested by the Executive Committee to redraft them, and it was directed that they should then be transmitted to the bodies concerned before being submitted to the General Council.

The clauses, as redrafted, together with a covering letter by the President, dated June 16th, 1899, were accordingly forwarded to the medical authorities.

Clause 1.—It may be explained that the object of the alteration in this clause was to make it quite clear that at the expiration of the period during which a medical practitioner's name and qualification had been erased from the Medical Register it would be necessary for him to show that he was still in possession of a medical diploma before he could be restored to the Register.

Clause 2.—As this clause formerly stood the principal objections had come from universities, some of which could not acknowledge the right of any body other than the university itself to take away or restore the degrees conferred on its graduates, whilst others, though willing to agree that a practitioner whose name had been erased from the Medical Register should be deemed to be deprived of his degree in so far as it gave a qualification to practise, were not prepared to assent to the implied deprivation of other academic privileges which the degree might confer.

Some of the medical and surgical corporations further desired that the operation of the clause should be limited to degrees or diplomas conferred by bodies which do not at present possess the power of withdrawing the qualifications which they have granted.

As redrafted Clause 2 makes it lawful for each of the medical authorities to revoke or cancel the medical diploma of such authority held by any person whose name has been erased from the Medical Register under Section 29 of the Medical Act, 1858. The withdrawal of the diploma would therefore be the act of the medical authority itself and need not follow consequentially upon the judgment of the Council. The rights of a university or other medical authority over the diplomas conferred by it would not be interfered with, and power would be given to those bodies which do not now possess it to revoke or cancel a medical degree or diploma. Power would also be granted to the medical authority to restore such diploma or degree should the authority think fit to do so.

The re-drafted clauses by Mr. MUIR MACKENZIE, May, 1899, were as follows:—

1. Where a registered medical practitioner has been convicted in England or Ireland of any felony or misdemeanour, or in Scotland of any crime or offence, or has after due inquiry been judged by the General Council to have been guilty of infamous conduct in a professional respect, the General Council may, if it thinks fit, by order direct that the name of the practitioner shall be and remain erased from the Medical Register for a limited period, and may from time to time, by order, vary such period; and at the expiration of the period limited by such order or subsequent order the Registrar shall, if the practitioner shall then possess a medical diploma, and unless otherwise ordered by the General Council, restore the name of the practitioner and his then existing medical diplomas to the Medical Register.

2. (*a*) It shall be lawful for each of the medical authorities, if and when such authority thinks fit, summarily and without further inquiry, to revoke or cancel the medical diplomas or diploma of such medical authority held by any person whose name has been erased from the Medical Register by order of the General Council for any of the causes mentioned in Section 29 of the Medical Act, 1858, and subsequently to restore such medical diplomas or diploma to such person without requiring him to pass a qualifying examination.

(*b*) Nothing in this Act shall prejudice or affect the powers already possessed by any medical authority of depriving a member of his medical diploma or diplomas or of striking off members from its lists or rolls.

3. Notwithstanding anything contained in any Act now in force, or hereafter to be passed, all fines and penalties recovered under the Medical Acts or the Dentists Act, 1878, or this Act, whether recovered in the Courts of Summary Jurisdiction in the metropolitan police district or elsewhere, shall be paid to the treasurer of the General Council.

4. In this Act—

"General Council" means the General Council of Medical Education and Registration of the United Kingdom.

"Medical Authorities" means the universities and bodies entitled to grant medical diplomas conferring on the holder the right to registration under the Medical Acts.

"Medical Diploma" has the same meaning as such expression has in the Medical Act, 1886.

The President has now to report that unqualified approval of these clauses in their new shape has been expressed by the ten following medical authorities: the University of Oxford; the University of Cambridge; the University of Durham; the Apothecaries' Society of London; the Royal College of Surgeons of Edinburgh; the Faculty of Physicians and Surgeons of Glasgow; the University of Glasgow; the Royal College of Physicians of Ireland; the Royal College of Surgeons in Ireland; and the Apothecaries' Hall, Dublin.

Eight others of the medical authorities have also expressed their general approval of the clauses, but have suggested slight alterations or verbal amendments:—

(1) The Royal College of Physicians of London suggest that in Clause 2 (*a*) the words in the second and third lines "*and without further inquiry*" should be struck out, as by the by-laws of the College holders of diplomas are entitled to an inquiry.

(2) The Royal College of Surgeons of England suggest with regard to Clause 1 that as its provisions are intended to deal, not only with the original removal of practitioners from the Medical Register, but with the prevention of continued practice by persons after such removal, the use of the term "*registered medical practitioners*" should be avoided, and the phrase substituted "*persons registered under the Medical Acts.*"

(3) and (4) The Universities of Edinburgh and St. Andrews desire the insertion of the proviso that, as regards the Scottish universities, the Senatus Academicus should be the university authority possessing the penal powers to be exercised, with the right of appeal to the University Court by the person complained of.

(5) While the University Court of the University of Aberdeen fully approves of the clauses, the Senatus Academicus would desire the understanding that the Medical Council, when required, should furnish a statement of the circumstances of any case.

(6) The Royal College of Physicians of Edinburgh suggest with regard to Clause 1 that after the words "*medical diploma*" in line 11 the following words should be inserted, "*or medical diplomas entitling such practitioner to be registered in the Medical Register.*"

(7) The University of Dublin, in regard to Clause 2 (*a*), would desire to omit the opening words—viz.: "*It shall be lawful for each of the medical authorities if and when such authorities,*" and to substitute the following words: "*In the case of any medical authority which does not at present possess the power of revoking or cancelling a medical diploma it shall be lawful for such authority when it.*"

(8) The Senate of the Royal University of Ireland approve of Clause 1 and Clause 2 (*b*), but as to Clause 2 (*a*) they are of opinion it should be amended by substituting in lines 2, 3, for the words "*summarily and without further inquiry,*" the words "*either with or without further inquiry,*" and by inserting immediately after the word "*cancel,*" line 3, the words "*or suspend.*"

The University of London reply in regard to Clause 2 (*a*) that as the point raised is part of a much larger question the Senate, as at present advised, is unable to take action in the matter. It should be stated that in their comment on this clause, as originally drafted, the Senate of the University of London expressed their willingness to coöperate with the Council in obtaining for the University the power to withhold from graduates who have been guilty of professional misconduct the use of their degrees as a qualification to practise during the time that their names are taken off the Register.

The Victoria University has not yet been able to express its opinion, but it may be stated that when the clauses as originally drafted were before it its Council passed the following resolution:—

"That no graduate of the University should be deprived, or deemed to be deprived, of his degree, or any right conferred thereby, except by the act of the University."

The President submitted to Mr. Muir Mackenzie the criticisms on the clauses as re-drafted and requested him to consider and advise on them. In reply Mr. Muir Mackenzie has sent the following remarks, together with a copy of the clauses as amended by him so as to meet the comments made by certain of the bodies:—

I have carefully considered the alterations in the proposed clauses suggested by the various medical authorities referred to in the President's draft report and including the report from the Royal University of Ireland, a copy of which was forwarded to me since the preparation of the draft report.

I have resettled the proposed clauses and send herewith the draft of

them as resettled, the alterations which I have made being indicated in italics. It will be seen that the alterations are very slight and do not affect the substance and effect of the proposed enactments.

With reference to the suggested alterations and the amendments which I have made I desire to observe as follows:—

The Royal College of Physicians of London suggest that in Clause 2 the words "and without further inquiry" should be struck out and the Royal University of Ireland suggest that instead of the words "summarily and without further inquiry," the words "either with or without inquiry" should be inserted. The best way of meeting these suggestions is, in my opinion, to omit the words referring to an inquiry altogether.

The effect of this alteration will be that each medical authority will have power to erase a practitioner's name for the causes mentioned in the enactment; and it will in each case be a matter of internal regulation, or within the discretion of the medical authority, whether a judicial inquiry shall be held or not.

The clerical alteration suggested by the Royal College of Surgeons of England seems to me to be one to which no objection can be taken and I have incorporated it in the draft.

The suggestion of the Royal College of Physicians of Edinburgh is one to which I have given effect by an addition to the interpretation clause.

As regards the suggestions of the universities of St. Andrews and Edinburgh that words should be put in providing that the powers conferred by Clause 2 should be exercised by the Senatus Academicus, I venture to suggest that that is a matter of detail which it would be inexpedient to introduce into the clauses to be submitted to Parliament. The object of the proposed legislation is to confer in general terms a power in each medical authority to revoke or cancel the diplomas in particular circumstances. The question as to how and by what part of the governing body of the medical authority the power of revocation and cancellation should be exercised is a matter of internal regulation which I would suggest should be dealt with by by-laws or, if necessary, by some amendment of the Charter of the medical authority. The suggestion of the University of Aberdeen that the Medical Council should furnish a statement of the circumstance of any case is not one which it is necessary to incorporate into the proposed enactment. It may be assumed that the General Medical Council would comply with any request by one of the medical authorities for information as to the circumstances of any penal case.

The suggestion of the University of Dublin is one which I would venture to suggest should not be adopted. To confine a portion of the enactment to those medical authorities only which at present do not possess the power of revoking and cancelling their diplomas would be most detrimental to the efficiency of the proposed enactment. It is difficult to say with certainty which of the medical authorities do and which do not possess a complete power of revoking and cancelling their diplomas. It appears from the report of the committee which inquired into the powers possessed by the medical authorities (set out at pages 70 to 78 of the minutes for 1896 and the appendix to these minutes) that some of the medical authorities possess partial powers of revocation and cancellation and that as to some of the medical authorities it is doubtful whether they do possess such powers and what the extent of the powers is in each case. Thus the Universities of Durham and Cambridge have partial powers. In the cases of the Universities of Glasgow and Edinburgh the matter is doubtful. Some of the medical authorities which possess the power of cancellation may not possess the power of restoration which the proposed clause will confer. In these circumstances I venture to suggest that the best course to adopt is that which is adopted in the draft clauses—namely, to confer the general power of cancellation and revocation, with a proviso that all existing powers now possessed by any medical authority shall not be affected.

M. MUIR MACKENZIE.

4, Temple-gardens, E.C., Nov. 10th, 1899.

DRAFT CLAUSES AS AMENDED, NOVEMBER, 1899.

1. Where a *person registered under the Medical Acts* has been convicted in England or Ireland of any felony or misdemeanour, or in Scotland of any crime or offence, or has, after due inquiry, been judged by the General Council to have been guilty of infamous conduct in a professional respect, the General Council may, if it thinks fit, by order, direct that the name of the practitioner shall be and remain erased from the Medical Register for a limited period, and may from time to time, by order, vary such period, and at the expiration of the period limited by such order or subsequent order the Registrar shall, if the practitioner shall then possess a medical diploma, and unless otherwise ordered by the General Council, restore the name of the practitioner and his then existing medical diplomas to the Medical Register.

2. (*a*) It shall be lawful for each of the medical authorities, if and when such authority thinks fit, to revoke, *suspend the use of*, or cancel the medical diplomas or diploma of such medical authority held by any person whose name has been erased from the Medical Register by order of the General Council for any of the causes mentioned in Section 29 of the Medical Act, 1858, and subsequently to restore such medical diplomas or diploma to such person without requiring him to pass a qualifying examination.

(*b*) Nothing in this Act shall prejudice or affect the powers already possessed by any medical authority of depriving a member of his medical diploma or diplomas or of striking off members from the lists or rolls.

3. Notwithstanding anything contained in any Act now in force or hereafter to be passed all fines and penalties recovered under the Medical Acts or the Dentists Act, 1878, or this Act, whether recovered in the Courts of Summary Jurisdiction in the metropolitan police district or elsewhere, shall be paid to the treasurers of the General Council.

4. In this Act "General Council" means the General Council of Medical Education and Registration of the United Kingdom.

"Medical authorities" means the universities and bodies entitled to grant medical diplomas conferring on the holders the right to registration under the Medical Acts.

"Medical diploma" *means a medical diploma as defined in the Medical Act, 1858, and entitling the holder to be registered in the Medical Register.*

The President reports to the Executive Committee the action which he has taken since he presented an interim report to the Council on June 3rd, 1899. The clauses as now amended by Mr. Muir Mackenzie meet in all essential points the criticisms made by those medical authorities who had taken exception to some of the expressions in the clauses as previously drafted, and it may be considered that the authorities are now practically unanimous in their desire to have the Medical Act of 1858 amended in the direction stated in the report.

The PRESIDENT said he thought that having had the responsibility of this report he might say a few words. He would state to begin with that this was not a new matter at all. It had been before the Council for many years, though sometimes no action of any kind had been taken. It was before the Council when the late Mr. Marshall was President and there was a draft Bill prepared by the Council's lawyers bearing upon this very question, but this draft Bill was never approved by the Council although it was considered. He would also point out that for several years Mr. Bryant had taken a very strong interest in this question and that he had laid before the Council a series of reports which were of great value because they informed the Council what the powers of the individual medical authorities were as regards this question of the removal of persons from their respective lists who had been convicted either by criminal courts or by the General Medical Council itself under Section 29 of the Medical Act. The matter was very much at that stage when he (Sir William Turner) was appointed President of the Council and he was asked to continue the matter so as to endeavour to bring it to a point. He thought he might mention that that which led the Council to wish that this question should be brought to a point was a notorious case which had to come before the Council under Section 29 of the Medical Act, where a practitioner having the title of doctor of medicine and who had been removed from the Medical Register continued to practise in London with his title although he was no longer on the Register, and the offence with which he was charged and convicted by the Criminal Court was of so serious a nature that it was felt that the time had come when the Council should approach the different medical authorities and ask especially those authorities who did not at this present moment possess power to remove from their lists anyone possessing their qualifications and ask if they would agree to such power being conferred on them. That was the position when he took up the matter and he had thought that the best plan was to sound the Privy Council on the matter to see how far they would be prepared to help them, and he was informed that the first step that should be taken was to obtain the consent of the different medical authorities. It was on that that he acted, and Mr. Muir Mackenzie was then asked as their legal adviser to draft clauses which could be submitted to the medical authorities so that the Council might elicit an opinion from those authorities as to what their views were on them. The clauses were drafted from this point of view—namely, that if a person were struck off the Register by the Council, in virtue of that erasure his name should disappear from the lists of the body or bodies to which he belonged in a sort of automatic way. The fact of striking him off from the Register should also deprive him, so long as he was off the Register, of the power to use his diplomas for any professional purpose. That probably was considered by several of the medical authorities as too stringent because some of them said, and said very properly, "We have in our own Charters the power to do this and there is no reason why the Medical Council should interfere with us." Others, again—and this came especially from the universities—held that they, and they alone, should be able to exercise the power that their graduates should not be put under the control of the Medical Council so much as the Council asked, and that if their graduates were to be removed from the lists it was the universities themselves who should remove them. This view was pressed with so much force by several of the most important universities in the United Kingdom that it was felt it was useless to proceed with the question in the form in which the clauses were originally drafted, and so the matter was again referred to Mr. Muir Mackenzie to see how far he could meet the objections raised, and he met them in this way. He drafted clauses which gave to those bodies that did not at the present time possess the power of erasure from their lists of offending licentiates or graduates that power. Another very important point had been included in the clauses which were about to be submitted to the Council—namely, that the medical authorities who removed from their lists or who suspended from their lists the names of their licentiates or graduates should have the power of restoring them to their lists, and there was also given this

important power that the Medical Council should have of restoring to its Register by statute the names and qualifications of those persons who had been removed from the Register by the Council itself. He would remind the Council that this was an extremely important provision, not only to the medical authorities, but also to the Council. The Council had not at this time definite statutory power to restore. The Council assumed it in virtue of the common law of the land. If these clauses became law then all the medical authorities in the United Kingdom would have the power of removing from their respective registers the names of persons who had been removed from the Medical Register by the operation of the Council under Section 29 of the Medical Act. They would also have the power to suspend the use of diplomas. Then, again, there was nothing in these clauses to affect the powers of those bodies who already possessed the power of deprivation. Whilst these were the principal points there were certain subordinate clauses. There was one, for instance, which would definitely give to the Council fees recovered in the courts of summary jurisdiction in the metropolitan district and elsewhere. If that were done an end would be put to what the Council had long considered to be an abuse in that direction.

Mr. BRYANT moved:—

That the Council adopt the report of the President on the steps taken by him to have Section 29 of the Medical Act (1858) amended so as to secure increased powers for penal and diciplinary purposes, and request him to forward to the Privy Council the draft clauses as amended, with the expression of the hope that the Privy Council would support a short Bill in Parliament to have them made law.

Sir DYCE DUCKWORTH, in seconding the motion, expressed great satisfaction at the point this movement had now reached, and he congratulated the Council on having done a piece of excellent work which would be for the welfare of the profession and the public.

The PRESIDENT invited the representatives of London and Victoria Universities to explain the attitude of their governing bodies in respect to this matter.

Dr. LEECH stated that the Committee of the Council of the Victoria University had considered the draft clauses and had unanimously expressed approval of them with one verbal alteration. The Council itself was to meet next week.

Dr. PYE-SMITH, on behalf of the University of London, said that the first proposal which he for one would have consented to was opposed by a good many members of the governing body, many of whom were not members of the medical profession and who from a purely academic point of view took objection, but there was no opposition to the amended form and now there was a considerable majority of opinion in favour of meeting the view of the Council. It was a desirable road the Council were going, and he trusted the universities some day of their own free will would be induced to give up conferring degrees that sanctioned medical practice. That was a direction in which things were tending, and if it were brought about there could be nothing so beneficial to the profession or the universities themselves.

Mr. HORSLEY suggested an amendment of the motion to the effect that the Privy Council should be asked to support the clauses when introduced into Parliament. He reminded them that the Lord President of the Privy Council had informed them that he could hold out no hope of Government legislation.

The PRESIDENT said that a modification had already been put into his hands. It was in the following terms:—

That the Council approve the amended draft clauses incorporated in the President's report and request him to forward the same to the Lord President of the Privy Council, expressing the Medical Council's desire that the Government should promote or support a Bill for passing them into law.

Mr. CARTER wished to ask what would be the position of a Licentiate of the Society of Apothecaries of London or the Apothecaries' Hall of Dublin whose name had been removed from the Register supposing this Council wished to restore him and the licensing body refused to return his diploma.

Dr. LITTLE put a similar question.

The PRESIDENT pointed out that in draft clause 1 it was provided that "the Registrar shall, if the practitioner shall then possess a medical diploma, and unless otherwise ordered by the General Council, restore the name of the practitioner and his then existing medical diplomas to the Medical Register." That was fundamental. The body which must act first was the body from whom the diploma had been received and by whom it had been withdrawn. It was only with the diploma in his hand that the man could come to the General Council. There were two bodies concerned in the matter—the Council who took the man's name from the Register and the medical authority who took his name from its list. If a medical authority followed the action of the Council and took a man off its list or suspended the use of his diploma the body must first come into operation and restore to the man his diploma, and then, having got his diploma, the man must come to the General Medical Council and say, "Will you put me on your Register again?"

Dr. MCVAIL said that a question of great difficulty had been raised, but that difficulty would be removed ultimately by the Council adopting a new procedure. Supposing a graduate of the University of Glasgow were removed from the Register by this Council the Council would send down to the University the reasons and the University, without trying the man, would read the reasons and take his name away. It had been asked who should move first. The President had said that the Council could not restore him until he had got back his diploma.

The PRESIDENT: That is so.

Dr. MCVAIL said that that raised a very important point. How was the body that did not try him to give him back his diploma? That difficulty would be got over by the Council framing a new Standing Order providing that a man should apply to the Council for restoration, that the Council should then consider the case and say, "We cannot restore until you get your diplomas back, but we shall send down our opinion that the body who gave the diploma should restore it to you and if you come back to us with it then we will restore your name to the Register."

Sir RICHARD THORNE: You gave the opinion, Sir, that the licensing body would have first to restore the diploma. Supposing it is a university degree. The man has got it back and comes here. The Council refuses to restore him and he goes away with the diploma in his pocket and the position remains unchanged so far as the Council is concerned.

The PRESIDENT said that Mr. Muir Mackenzie had come to the conclusion that the authority must judge for itself whether the evidence furnished to it by the Medical Council was or was not sufficient. If the Medical Council thought it was sufficient the licensing body would not hold an inquiry.

The motion, as modified, was agreed to unanimously and the PRESIDENT said he would write to the Privy Council in regard to the matter.

Reciprocity of Medical Practice in relation to Foreign Countries.

The Council next proceeded to receive from the Executive Committee a report on the revision of the memorandum on reciprocity of medical practice in relation to foreign countries, arising out of the determination of the Council in June last to obtain a legal opinion on the whole question. The report was as follows:—

I. Part II. of the Medical Act, 1886, authorises the registration, without examination in the United Kingdom, of colonial and foreign practitioners in separate lists in the Medical Register of the United Kingdom and prescribes the following conditions under which recognition may be obtained:—

(*a*) That in the opinion of the Queen in Council the British possession or foreign country affords to registered medical practitioners of the United Kingdom such privileges of practising as to Her Majesty may seem just.

(*b*) That the medical diploma or diplomas to be registered shall be recognised by the General Council as furnishing a sufficient guarantee of the possession of the requisite knowledge and skill for the efficient practice of medicine, surgery, and midwifery.

(*c*) That the applicant is of good character and is by law entitled to practise medicine, surgery, and midwifery in the British possession or foreign country the diploma or diplomas of which he possesses.

II. It may properly be assumed that Part II. of the Medical Act would not have been included in the Act unless it had been the intention of Parliament that when the prescribed conditions were complied with the powers given by the Act should be brought into operation. The first registration in the Colonial List was effected in June, 1890, and up to the present date the names and qualifications of 70 colonial practitioners have been entered in the Colonial List.

Orders of Her Majesty in Council have now been made extending the operations of Part II. of the Act to New South Wales, Victoria, South Australia, New Zealand, Ceylon, and India. Up to the present time no Order in Council has been issued to bring any foreign country under the operation of the Act.

III. In consequence of information which had reached the Council regarding restrictions which either had been imposed by foreign countries or which were designed to be imposed on the practice of the profession in those countries by registered British practitioners a memorandum was prepared in 1892, under the direction of the late President at the request of the Council, in which the conditions under which foreign medical practitioners were allowed to practise medicine in the United Kingdom were set forth. This memorandum was submitted to the Lord President of the Privy Council, by whom it was

approved, and who undertook to bring it under the notice of the different foreign Governments through the Secretary of State for Foreign Affairs. Communications with regard to medical practice in many foreign countries were received from their respective Governments and will be found as an appendix to the memorandum above referred to.

IV. On May 25th, 1893, the General Council passed the following resolution:—

That the memorandum on reciprocity be not reprinted without further order of the Council and that it be referred to the Executive Committee for consideration and report. (Minutes, vol. xxxv., pp. 74–75.)

The Executive Committee, having considered this subject through a sub-committee, on Nov. 21st, 1898, passed the following resolution:—

That the statement as to the position of foreign practitioners in the United Kingdom, as amended by the Executive Committee, be reported to the General Council. (Minutes, vol. xxxv., p. 292.)

On the statement being so presented to the Council on Nov. 30th, 1893, the consideration of this subject was postponed to the next session.

V. On May 31st, 1899, owing to communications from the Privy Council Office in regard to Italian medical practitioners in this country and the question of reciprocity the General Council adopted the following resolution:—

That it be remitted to Mr. Muir Mackenzie to advise the Council as to whether, under Section 17 of the Medical Act of 1886, the privileges to foreign practitioners can be restricted to the recognition of practice by them amongst their fellow-countrymen only who may be resident in this country. (Minutes, vol. xxxvi., p. 36.)

Mr. Muir Mackenzie gave an opinion on this subject to the effect that the privileges to foreign practitioners could not be restricted in the manner described in this resolution (Minutes, vol. xxxvi., pp. 91–92). On June 9th, 1899, it was remitted to the Executive Committee to make representations to the Privy Council arising out of the above-mentioned opinion given by Mr. Muir Mackenzie, and the Committee was requested, in a covering letter to the Privy Council, to indicate the difficulties that surround the granting of recognition to medical graduates of foreign countries over whose curricula of study and professional examinations the Medical Council could exercise no supervision. As the Council had, however, previously passed on June 3rd, 1899, a resolution to refer back to the Executive Committee its report on Reciprocity of Medical Practice for further consideration, and in order to obtain an opinion on the whole question, the Executive Committee have postponed communicating with the Privy Council on the subject of the remit made to them in the motion of June 9th, 1899.

VI. The following opinion and statement on the question of reciprocity have been obtained from Mr. Muir Mackenzie:—

RECIPROCITY OF MEDICAL PRACTICE.

OPINION.

I have prepared and send herewith a statement of the law as bearing on the question of reciprocity of treatment between foreign countries and the United Kingdom in reference to medical practice which, if approved, I would suggest might be adopted as a basis for a statement to be submitted to the Governments of foreign countries with whom it is desired to establish reciprocity of treatment.

M. MUIR MACKENZIE.

4, Temple-gardens, E.C., August 11th, 1899.

STATEMENT.

The law which prevails in the United Kingdom with respect to the rights of foreign practitioners in medicine and surgery to practise in the United Kingdom may, I think, be conveniently stated as follows:—

Before the passing of the Medical Act, 1858, there was no general law in force in Great Britain and Ireland regulating the conditions under which persons might practise medicine and surgery.

Certain Acts of Parliament were in force in England alone, such as the 32nd Henry VIII. c. 40, which regulated the privileges of physicians, and the Apothecaries Act of 1815, which applied to England and Wales only. There were also some Acts in force in Ireland, such as the 40th Geo. III. c. 84, which related to the College of Physicians in Ireland.

Of the Acts relating to separate parts of Great Britain and Ireland the most important is the Apothecaries Act, 1815, which applies only to England and Wales, by which a penalty is imposed on any person who practises as an apothecary without having obtained the certificate of the Society of Apothecaries. This Act is still in force. In England, before the date when the first of the Medical Acts was passed, it was undoubtedly considered illegal for a person who was not an Englishman to practise medicine in England unless he was possessed of a qualification to do so granted by one of the English qualifying bodies. Collins *v.* Carnegie, decided in 1834, 1 A. & E. 695.

In the year 1858, by the Medical Act of that year, the Medical Register was established for the purpose of enabling persons requiring medical aid to distinguish qualified from unqualified practitioners, and that Act was amended by the Medical Act, 1886.

The Medical Acts provide in effect that a registered medical practitioner is entitled to practise medicine, surgery, and midwifery in the United Kingdom and to recover his charges in respect of his practice; and the Medical Acts impose disabilities of a very stringent kind on medical practitioners who, even if possessing qualifying diplomas, are not registered. The Medical Acts do not in terms impose any penalty on a person who is not registered for practising medicine or surgery, but a stringent penalty is imposed on any person who wilfully and falsely assumes a medical title which he does not possess or pretends to be a duly qualified or a duly registered practitioner. The general effect of the legislation is that a person is not a legally qualified medical practitioner unless he possesses a diploma granted after passing the prescribed qualifying examinations and is also registered in the Medical Register.

It is specially provided by one of the Medical Acts—namely, the Medical Act Amendment Act, 1859—that a foreigner who has obtained from a foreign university a degree or diploma of Doctor of Medicine and who has passed the regular examinations entitling him to practise medicine in his own country, may act as the resident physician or medical officer of any hospital established exclusively for the relief of foreigners in sickness.

A foreign medical practitioner who comes to the United Kingdom is bound by the laws in force in the United Kingdom and becomes subject to the penalties and disabilities imposed by those laws. See the judgment in *re* Clark (1895) 22 R. 476 on p. 479. Consequently a foreign practitioner who has not obtained registration in the Medical Register and is not within the exception provided for by the legislation above referred to is in the position of a practitioner who is not recognised by law.

With a view to establish reciprocity between the United Kingdom and foreign countries with regard to medical practice enactments were introduced into the Medical Act of 1886 which provide for the establishment of a list in the Medical Register for foreign practitioners with recognised foreign diplomas. The Act, in Section 17, provides that the Queen in Council may by Order in Council apply the part of the Act which relates to foreign practitioners to any foreign country which, in the opinion of Her Majesty, affords to the registered medical practitioners of the United Kingdom such privileges of practising in the foreign country as to Her Majesty may seem just. When an order has been made applying the Act to such a foreign country as is above described, the General Medical Council has power to grant recognition to such medical diplomas of the foreign country as in the opinion of the General Council furnish a sufficient guarantee that the holder of the diploma possesses the requisite knowledge and skill for the efficient practise of medicine, surgery, and midwifery. The holder of a recognised medical diploma granted in a foreign country to which the Act applies may then obtain registration in the Foreign List of the Medical Register.

A foreigner who has obtained registration of his name in the foreign list of the Medical Register is entitled to practise medicine, surgery, and midwifery in the United Kingdom with all the privileges which are possessed by a British registered medical practitioner.

As regards dental surgery the Dentists Act provides for the registration of foreign dentists in the Dentists' Register on the production of a diploma or certificate of a foreign body whose diploma or certificate is recognised by the General Medical Council or the Privy Council as furnishing a sufficient guarantee that the holder possesses the requisite knowledge and skill for the efficient practice of dentistry and dental surgery. A foreign dentist who is not registered cannot legally practice as a dental surgeon or dentist in the United Kingdom.

The general effect of the legislation is that there is power in the Executive Government of this country and the General Medical Council to confer upon a medical practitioner of any foreign country which affords to the registered medical practitioners of the United Kingdom just and reasonable privileges of practising in that country the right and privilege of lawfully practising medicine, surgery, and midwifery in this country without obtaining the diploma of one of the British qualifying bodies.

M. MUIR MACKENZIE.

August 10th, 1899.

VII. As to the difficulty expressed in the resolution of the Council of June 9th, 1899, that the Council exercises no supervision over the curricula of study and the professional examinations of the medical graduates of foreign countries, such as is conferred on the Council in regard to the examinations conducted by the medical authorities of the United Kingdom, it is left to the Council to determine in what other way it may satisfy itself that the diplomas conferred have been obtained after such study and examination as furnish a sufficient guarantee of the possession of a requisite amount of professional knowledge and skill. The Council may further be reminded that they have already admitted 70 colonial practitioners to the Colonial List and that in no case has the Council had the opportunity of visiting and inspecting the examinations through which these practitioners obtained their diplomas. The Council has formed its opinion that the diplomas obtained were satisfactory from an inspection of the regulations of the examining authorities in the colonies and from the public reputation of the examining bodies themselves.

As regards the recognition of diplomas granted by medical authorities in the United States of America it is subject to the same conditions as are applicable to any other foreign country.

Attention may be called to Section XIII., 2, of the Act of 1886, which provides that should the General Council refuse to recognise a colonial or foreign diploma the Privy Council may, if they think fit, after communication with the General Council, order the General Council to recognise the said diploma, and such order shall be obeyed.

This Report, prepared by the President, was presented to the Executive Committee, Nov. 27th, 1899, when the following resolutions were passed:—

Resolved: (*a*) That this report be adopted and entered in the minutes of the committee and be reported in these terms to the Council;

(*b*) That the General Council be recommended to authorise the issue of Mr. Muir Mackenzie's statement of August 10th, 1899, as an expression of the Council's views in regard to its legal position in connexion with the question of reciprocity of practice; and

(*c*) That the Executive Committee recommend that the General Medical Council represent to the Privy Council that the time has arrived when Her Majesty in Council should apply Part II. of the Act of 1886 in respect of foreign practitioners to the Kingdom of Italy.

In answer to Mr. HORSLEY it was stated that the old memorandum was still on sale.

The REGISTRAR thought that only one copy of it had been issued since the adoption of Mr. Horsley's proposal that it should not be reprinted. There were still copies on hand.

Dr. MACALISTER proposed:

That the Council adopt the statement prepared by Mr. Muir Mackenzie as expressing the present state of the law of this country in regard to reciprocity of medical practice, and direct that it be introduced into an amended edition of the Memorandum on "Reciprocity of Medical Practice in relation to Foreign Countries," to be hereafter issued in place of the "Introduction (I.)" and "Statement (II.)" on pp. 5, 6, and 7 of the present edition.

Mr. BRYANT seconded this proposal and it was agreed to.

Sir DYCE DUCKWORTH then moved:—

That the Executive Committee recommend that the General Medical Council represent to the Privy Council that it be intimated to the Italian Government that the time has arrived when it should approach Her Majesty in Council with a view to have Part II. of the Medical Act of 1886 in respect of foreign practitioners applied to the Kingdom of Italy.

He said that the reason why this question came up at the present time was that it had become important to take action with respect to Italian practitioners. It was understood that the Italian Parliament was concerning itself with this matter and there was great fear that unless something was done English practitioners might not be able to practise in the Kingdom of Italy. Hitherto they had been able to practise without let or hindrance to the advantage of their fellow countrymen and countrywomen, and no doubt to the advantage of many Italians also. This question concerned a large number of practitioners who were resident in the winter months in the Italian Riviera and in Italian cities elsewhere in the country, and they were at the call of the many English-speaking people who travelled in the winter months in Italy. If the Italian Parliament altered the present law difficulty would arise. Therefore, this Council should take action now in order to get the Italian Government to take advantage of the Act of 1886. He did not know how many Italians were in practice in this country. Personally he knew of only one; but it was quite certain that for one Italian doctor who would seek to benefit by this reciprocity law in England there would be ten English doctors who would seek to benefit in Italy. With respect to Italian diplomas they knew that there was not one unsatisfactory diploma issued in the kingdom of Italy. The Italian medical curriculum was one of six years—one year longer than the British. That should give confidence.

Dr. HERON WATSON formally seconded the motion.

Dr. LITTLE asked why France and Switzerland should not be included.

Dr. MACALISTER explained that English practitioners could not practise in France as they now did in Italy, which was almost the only country of Europe to which Part II. of the Act of 1886 could apply.

Dr. MCVAIL decidedly objected and he said he should not vote for the proposal. If they granted this reciprocity to Italy they could not refuse it to Germany, France, or America so soon as these countries came here with a similar request.

The PRESIDENT: And are prepared to accord to us similar privileges.

Dr. MCVAIL: Then that simply meant the breakdown of the Medical Acts of this country. It meant not that Italians might come here to attend to the organ-grinders and ice-cream vendors, but that large numbers of American medical men would come across the ocean to treat their wealthy fellow-countrymen. He objected to American practitioners because many held inferior diplomas.

The PRESIDENT said that power was given under the Medical Act to refuse to accept inferior diplomas.

Dr. MCVAIL wondered how that was to be done. He did not think the existing machinery was sufficient for such a purpose.

Sir DYCE DUCKWORTH: What about the colonial universities?

Dr. MCVAIL was prepared to come to that presently. What he now desired to say was that they could not stop with Italy, for they were inaugurating the open door. If foreigners were to be allowed to come to this country to practise the General Council were simply informing the public that it was only on British students that disabilities in respect to entering the medical profession were to be laid. He said that this was a very grave question and he was not at all prepared to accept the motion. Had the United States of America been in place of Italy not a man in this Council would vote for the proposal.

Dr. MACALISTER: It would be impossible. The United States cannot do it under the constitution of 1776.

Dr. MCVAIL: Sir Dyce Duckworth had asked what about the colonial universities. He must recollect that over these the Council had control through the Privy Council. The Council had done splendid work in raising the medical profession of our country, and took credit for it, and they were proud of it. Were they then going to upset the whole thing by allowing foreign practitioners to come here and practise without any kind of adequate supervision? To talk about the inspection of a diploma as equivalent to what they imposed upon their own men was quite absurd. The motion admitted of no amendment. It could be only met by out-and-out opposition.

Mr. HORSLEY hoped the Council would not agree to this motion at all. It had been suggested that it was a question of hardship on foreign travellers of British nationality. He submitted that it was not a hardship on these travellers. The Council had been put into motion by some of our practitioners in Italy and they felt that it was a hardship on them. The Council had to consider the hardships as it affected these men and also our practitioners at home. This they would do for the sake of a few men who had to suffer, but it was possible that they would inflict hardships on a large number. That was the reason why he would ask the Council not to agree to this motion. If they once established the principle of the open door surely the result would be that numbers of poor Italian practitioners would come to this country to compete with British practitioners. He would submit that the question as to whether there were any unworthy Italian degrees was not before the Council because it was hardly possible for them to inspect these degrees. The argument in respect to our colonies was not a parallel one. They ought to welcome colonial practitioners, but he did not think it was fair to regard foreigners as in the same category as British colonists.

Dr. MACALISTER said he believed the number of Italians coming across would be infinitesimal. The present proposal was for the purpose of benefiting not only English practitioners but also English invalids abroad. It would be a very grave mistake to introduce protection in the narrowest and most trades union sense.

Mr. CARTER remarked that he knew of only one colonial practitioner practising in England.

At this stage the PRESIDENT informed the Council that he had received a modification of the motion which would now read as follows:—

That the President be requested to inform the Lord President of the Privy Council that in the opinion of the General Medical Council it would be highly opportune were Her Majesty in Council pleased to take into consideration the propriety of issuing an order declaring that Part II. of Section 17 (1) of the Medical Act should apply to the kingdom of Italy.

Dr. BRUCE said that the motion in this amended form complied with the Act of Parliament and he was glad that the alteration had been made.

Sir RICHARD THORNE remarked that he was in Italy not long ago and he met there an English practitioner. He had a certificate from the Government to treat English or American people, but he (Sir Richard Thorne) was surprised to learn that that certificate was limited to one year and that the practitioner would not get it renewed unless he took out an Italian degree. So the Council would require to keep their eyes wide open.

Dr. PAYNE was of opinion that the Council should first ask the Government to open negotiations with the Italian Government and then they would have after that to consider the qualifications of the foreign practitioners to see if they were good enough for the Council's purposes. If the Council saw that they were not good enough then they could give Italy a diplomatic rebuff. It seemed to him that it would be better if they were first to make the inquiry into the qualifications of foreign graduates and see if they approved of them.

The PRESIDENT said he was afraid that Section 17 of the Act referred to in the motion prescribed the order of procedure. Her Majesty in Council had in the first instance to make such and such a declaration. He did not see how Dr. Payne's suggestion fell within the terms of the Act.

After some remarks by Mr. TOMES the debate, on the motion of Sir J. BATTY TUKE, was adjourned.

The Irish Branch Council.

The Council received from their Finance Committee a report on the financial condition of the Irish Branch Council, with an opinion obtained from Mr. Muir Mackenzie on the subject. It was agreed that the report should be put upon the Council's minutes and that the opinion referred to should be printed and circulated as a strictly confidential document among the members of the Council.

The Council adjourned till Monday.

MONDAY, DEC. 4TH.

The Council resumed work to-day, Sir WILLIAM TURNER presiding.

The Society of Apothecaries of London.

The PRESIDENT announced that Mr. Bryant, Dr. Pye-Smith, and Dr. MacAlister had consented to act with himself

as the Special Committee on the letter of Mr. Upton of the Society of Apothecaries of London with regard to the title which the Licentiates of the Society may legally use.

Reciprocity in Medical Practice: The Case of Italy.

The Council then resumed the debate on the motion of Sir DYCE DUCKWORTH, seconded by Dr. P. HERON WATSON to this effect, viz.:—

"That the President be requested to inform the Lord President of the Privy Council that, in the opinion of the Medical Council, it would be highly opportune were Her Majesty in Council pleased to take into consideration the propriety of issuing an Order declaring that Part II., Section 17 (1), of the Medical Act (1886) should apply to the Kingdom of Italy.

Mr. TOMES moved as an amendment:—

"That the Privy Council be requested to procure from Her Majesty's Minister at Rome information upon the following points: (1) whether any change in the regulation affecting foreign practitioners has been made since the communication received in 1898; and (2) whether any such change is at present in contemplation by the Italian Government in order that the General Medical Council may be enabled to decide whether it is or is not expedient that they should advise the Privy Council that the provisions of Part 2, Section 17 (1), of the Medical Act (1886) should be made applicable to the Kingdom of Italy.

He did not think that a body like the Council in dealing with a point which everyone must acknowledge to be of the greatest importance should proceed upon private information when official information was readily procurable. It so chanced that he was acquainted with the gentleman who had furnished Sir Dyce Duckworth with information and he was quite prepared to place the utmost reliance upon any information proceeding from him, but he thought they should have as the basis of their action official information from the Italian Government to which on any future occasion they could point. It might, for instance, happen that the bargain, if he might so call it, which they made was not kept, and in such circumstances it would be desirable to be able to refer to official information. The plea of urgency had been put forward, but he did not think that in a matter of this kind the Italian Government would act precipitately.

Sir CHRISTOPHER NIXON, seconding the amendment, said he did so in order that there might be time for the consideration of this important question. It would be a mistake, he thought, if on the present occasion they were to establish a principle contrary altogether to the action they had been taking for the supervision of medical education and examination, and he thought it was extremely unlikely that if the Italian Government in the interests of Italian practitioners were about to take the step suggested by Sir Dyce Duckworth they would forego taking the step simply because they got the privilege from this Council of having a few Italian practitioners in this country to minister to vagrant minstrels or ice-cream vendors. He had no great apprehension of an army of American and German practitioners coming here, but he thought the principle a bad one of altering their regulations for the convenience of foreigners.

Sir DYCE DUCKWORTH said he had received a letter dated Dec. 2nd from the gentleman who had been referred to, who was a very well-informed person. He said: "I write to tell you that I heard from Rome to-day that Professor Durante had mentioned to an English medical man practising in Rome that the English Government as well as the others had declined to change their laws in reference to practice. Durante, besides being professor of surgery and a great leader, is president of the association of medical men who have pressed their Government into bringing in a Bill to exclude foreign practitioners in Italy. Laying aside the question that we require no change in our laws but only an order by the Queen in Council to grant reciprocity I gather from the above that somehow or other our Government has very recently led the Italian Government to understand that they decline reciprocity. If this is the case I regret it exceedingly, as the time has now come for English medical men in Italy not to continue to fight the battle to secure for their successors coming from England the privileges that they have all along enjoyed. I have vigorously rejected suggestions that my colleagues should simply content themselves with attempting to secure the privileges only for themselves and arrange that the alteration in the law shall not be retrospective. It is difficult for me to realise that our Government has refused to grant reciprocity to the Italians, but if it is the case the ground has been completely cut away from under my feet and I am therefore unable any longer to oppose those who wish to fight for their own hand alone. Before the meeting of your Council could you find out from the Government whether the refusal of reciprocity is already a *fait accompli?*" There could be no doubt, therefore, that the matter did press and if anything was to be done it must be done quickly if it was to have any effect Some of the speeches on Saturday were evidently made under a misapprehension of the situation. It did not seem to be realised that Italy was the only outstanding country to which this section of the Act could possibly apply, for no other outstanding country gave English practitioners the privileges which Italy did. Further, it did not seem to be recognised that no practitioner from any country could in any circumstances be admitted to our foreign list without most careful inquiry and scrutiny by this Council as to his character, antecedents, university degree, and so forth. They were not obliged to put anyone on the list. Further, he would point out that there were no Italian diplomas of low order. They were all good and they could only be obtained after a six years' course of study. He would also point out that the Privy Council could not put anyone on the list in the face of objection by this Council. While he said this he regarded Mr. Tomes's amendment as quite satisfactory and carried out all he wished, and he was ready to accept it in place of his motion.

Dr. P. HERON WATSON intimated that he also was prepared to accept it.

Leave was given to withdraw the motion and Mr. Tomes's amendment became the question before the Council.

Dr. ATTHILL suggested that our Government might be asked to communicate with the Italian Government informing the latter that the question was under consideration and inviting them to postpone any contemplated legislative action for the present.

Dr. MCVAIL hoped the Council would not accept this suggestion.

Dr. MACALISTER said it was out of the question to make such a representation. The Italian Government would learn from their communication that the Council had had the matter under consideration.

Dr. MCVAIL, while not objecting to Mr. Tomes's proposal, as it would give the Council time to consider the matter, said he thought it unfortunate that the Act did not enable the Council to limit the practice of foreigners in this country to people of their own nationality, and later he might bring forward a proposal to get the Act amended in this connexion.

Mr. TOMES expressed the opinion that if anything would stay the hands of the Italian Government it was such action as he now proposed.

The proposal of Mr. Tomes was then put to the Council and carried.

The PRESIDENT said that in his introductory address he told the Council that the German Government had applied for information with regard to the admission of foreigners to the examinations for British registrable qualifications. He had sent a communication on the subject to all the medical authorities asking them to furnish a short statement of their practice. This had been done and a *précis* had been made by the Registrar. This *précis* had been sent to the Education Committee and after it had been checked he proposed that it should be sent to the Privy Council as the answer to the German Government.

Mr. HORSLEY said that this document revealed a very serious state of things and he thought it was the duty of the Council to consider the circumstances in which it showed foreigners to be admitted to the Final Examinations of several of the examining bodies. He intimated that he would make a proposal on the subject to-morrow.

The Royal Colleges in London and the Recognition of Scientific Institutions.

The REGISTRAR read the following communications referred to the General Medical Council by the Executive Committee in regard to the recognition of scientific institutions and the approval of them by the Council.

(*a*) From the Royal College of Physicians of London.

Royal College of Physicians, London, S.W.,
Nov. 3rd, 1899.

SIR,—I beg leave to refer to your letter of June 19th last in which you drew the attention of this College, by direction of the Medical Council, to the following regulation of the Council in regard to the registration of medical students, intended to take effect from Jan. 1st, 1900, viz.:—

"No medical student shall be registered until he has passed a Preliminary Examination as required by the General Medical Council and

has produced evidence that he has commenced his medical studies at a university or school of medicine, or at a scientific institution recognised by one of the licensing bodies and approved by the Council."

With reference to this communication, I have now to acquaint you that it came for a second time under the consideration of this College at a general meeting of the President and Fellows held on Oct. 26th last, when the following resolution was adopted without a dissentient voice:—

"The Royal College of Physicians of London fails to recognise any authority under the Medical Acts in virtue of which the General Medical Council may impose the conditions formulated in the regulation in regard to the registration of medical students referred to in the letter from the Registrar.

"The College declines to recognise the requirement that scientific institutions where medical study is commenced should be approved by the General Medical Council."

I was instructed to forward to you a copy of this resolution and to request that you would direct the attention of the Council to the same. I am, Sir, faithfully yours,

H. E. Allen, Esq., Registrar. EDWD. LIVEING, Registrar.

(*b*) From the ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Royal College of Surgeons of England,
Lincoln's-inn-fields, London, W.C., Nov. 17th, 1899.

SIR,—In reference to your letter of June 19th, 1899, I am directed to acquaint you, for the information of the General Medical Council, that the Royal College of Surgeons of England fails to recognise any authority under the Medical Acts in virtue of which the General Medical Council may impose the conditions formulated in the regulation in regard to the registration of medical students referred to in your letter.

The College declines to recognise the requirement that scientific institutions where medical study is commenced should be approved by the General Medical Council.

I am, Sir, your obedient servant,

H. E. Allen, Esq., EDWARD TRIMMER, Secretary.
Registrar of the General Medical Council.

Sir WILLIAM THOMSON said he was exceedingly sorry to have again to call the attention of the Council to this matter but he had no alternative. It would be seen from these letters that the two Royal Colleges had deliberately come to the conclusion that they were justified in challenging the authority of the Council and he contended that if they succeeded in their declaration as laid down in these letters the Council would have no authority in any matter over them. The very title of the Council declared that they had to do with education, and if at the very threshold of education their power to lay down certain conditions and requirements was challenged by the two leading corporations in these countries they would not have long to wait until all the other colleges and corporations defied the Council to carry out any single recommendation or requirement. These letters raised so important a question as to the powers and functions of the Council that he thought it was right that the Council should assert its position. In the Act of 1858, section 20, it was laid down:—

> In case it appear to the General Council that the course of study and examinations to be gone through in order to obtain any such qualification from any such college or body are not such as to secure the possession by persons obtaining such qualification of the requisite knowledge and skill for the efficient practice of their profession it shall be lawful for such General Council to represent the same to Her Majesty's most honourable Privy Council.

The section, therefore, distinctly laid down that the General Medical Council was to look after the course of study and the examinations to be gone through for any qualification, and when they began by laying down that the first year should be spent at medical schools and not at general schools—schools for general education—he submitted that they were challenged upon that by the two Royal Colleges in London. The Council had adopted the report of the Education Committee in which it was said that the chief object of the Council's action had been to secure that ordinary school work should be completed and tested by a sufficient preliminary examination before the course of medical study was begun. Not only had these bodies departed from the arrangement for a five years' course, but in their new arrangement they had failed to inspect these first year schools, if he might so call them. He could quite understand that the Council would regret any collision with these two great bodies, which would have the effect of making the Council take action, but he maintained that it was the duty of the Council to assert its authority even though it had to take the matter to the Privy Council. He moved:

> That in reply to the letters addressed to the Council by the Royal College of Physicians of London and the Royal College of Surgeons of England in reference to the regulation of the Council on the subject of the registration of medical students (see Minutes, vol. xxxvi., p. 75) the Registrar be directed to inform these bodies that the Council adheres to its resolution.

Dr. BRUCE seconded this motion.

Dr. MACALISTER said it occurred to him that the effect of this motion would be very small indeed. On Jan. 1st, 1900, and on the following days the Registrar would no doubt have a large number of applications from students to be registered. He supposed nine-tenths of them would be students who had commenced study at a medical school or university and all these would be registered without question. Some of the remaining tenth would have commenced medical study under the auspices of the two Royal Colleges in London, at a board school or science school which they recognised and which this Council had not approved. The Registrar would simply not register them and the students would go back to the Royal Colleges for an explanation and it would be for the Royal Colleges to apply for a mandamus to compel the Council to register them and he did not think they would succeed in getting a mandamus. The only hardship would be upon the few students who had been misguided enough to seek registration without having fulfilled the conditions. They would recognise that they must be registered and probably what they would do would be to go to some recognised school and the Royal Colleges would make nothing of their refusal to obey the regulation of this Council.

Dr. MCVAIL asked whether there was anything to prevent the Colleges allowing these students to proceed to the first year and to go on and get their diplomas and present the diplomas for registration.

Dr. MACALISTER said there was nothing.

Dr. MCVAIL: Then the whole of this registration is a farce.

Dr. MACALISTER: It is a fact.

Dr. MCVAIL said that in this state of things not only these two Colleges but all the bodies would be able to set the Council at defiance. He did not, however, take this pessimistic view of the situation. He did not think that the Royal Colleges had the least desire to set the Council at defiance or to do anything with which the Council or the profession generally disapproved. He thought that in the meantime it would be quite sufficient if they asked the two Colleges to reconsider the position and to look to the effect of their action, and if they persisted then of course this Council must take stronger measures. The two Colleges had in fact cut down the curriculum from five to four years and he was not in the least afraid of the result of taking the matter before the Privy Council.

Sir PHILIP SMYLY emphasised the view that the plan of the two Colleges reduced the curriculum by one year.

Sir RICHARD THORNE said he felt the greatest regret that a College with which he was identified and which he so highly respected, should have taken up this attitude. He could not, however, help remembering that in this matter it was the Universities who had led the way and it seemed to him that this showed better almost than anything else the value of separating the granting of medical diplomas from University instruction.

Dr. ATTHILL said that unless the Council adhered to its regulation the whole system of medical education which for the last 10 years this Council had been trying to build up would fall to pieces like a house of cards.

Sir JOHN BATTY TUKE, speaking not as the chairman of the Education Committee, said it was very important to have this matter tested. The principle upon which he had always acted in regard to medical education was this—that registration was a machinery devised by the Council as absolutely necessary for it to carry out Section 18 of the Medical Act of 1858. What was the use of their starting a five year's curriculum if they did not know at what date a man began. His own feeling was that this contention would be maintained by the Privy Council. However, whether it were or whether it were not, he cared very little, for the country and the profession would learn how very weak the Council was and they would find it necessary to materially change its powers and very possibly change its constitution. He considered that these bodies had done a very unwise thing—unwise in their own interests and in the interests of the profession at large.

Mr. BRYANT, representative of the Royal College of Surgeons of England, said he desired to assure the Council that his colleagues were not in the slightest degree disposed to put themselves in opposition to the Council. They had hitherto been fairly loyal to the Council and had accepted their suggestions in a good spirit and had acted upon them where they thought them right. But both Colleges had felt that they had their own responsibilities and that they did not resign them when they entered the Council. They recognised to the full

their power and their privilege of recognising the schools and places of scientific instruction where they should ask their students to obtain the necessary information to pass their examinations and they felt for long that it would be and was a great thing if they could get rid of all these preliminary subjects before the students came up to London to engage in their special medical education. He admitted that the colleges had had to draw in their horns a little, for they thought and said that they would accept the teaching in certain good institutions and then require five years of medical study afterwards. He could not tell the Council for how many years they followed this course but he did remember that he came to the Council one day and told them that they found it did not pay. The other institutions in the country did not place themselves in the same position, and men did not see the force of spending six or nine months in learning these preliminary subjects when it gave them no advantage in the way of shortening their curriculum. There was a disposition upon the part of members of the Council to throw contempt upon the institutions recognised by the Colleges: Sir William Thomson had spoken about Board schools. They were not all Board schools, but if they were Board schools they were grand Board schools and would compete with any of the institutions of medical education in the metropolis.

Sir JOHN BATTY TUKE: Oh, oh!

Mr. BRYANT said that was perfectly true; they were better than many and they were all thoroughly good. There was only a very small number of the institutions which they had not visited, and those which had been visited were perfectly satisfactory and were quite up to the requirements of this Council. The Colleges maintained that in this matter they had not only done no harm to the profession but had done a great deal of good by encouraging the teaching of these scientific subjects in the great schools of the country. He was not going to discuss the question of registration. He did not know and he did not feel disposed to think that they were going to allow it to make much difference with them unless it was from necessity, but if the Council did ask them to wipe out all these institutions he would like to know whether the Council would tell them what institutions they should accept. He did not see how the Council could tell them. Many members of the Council did not appear to know what many of these high grade schools were. He had visited several of them and been quite surprised by their equipment for the teaching of chemistry, physics, and biology, and he should be exceedingly grieved to find, simply upon the strength of their being honest enough to tell the Council that there were a few institutions on the list which they had not visited, it was said they were all upon the same footing and deserved to be treated with contempt. He assured the Council that the Colleges had not the slightest wish to throw any difficulties in the way of the Council doing their work well if the Council did not throw any difficulties in the way of the Colleges doing their work well.

Dr. PAYNE said it appeared to him that on the question at present before the Council there was no room for argument; it was simply a matter of whether or not the Council had the power to sanction, or refuse to sanction, the institutions where medical study was commenced; and he thought this question might be referred to the legal advisers of the Council. For himself, he regarded the new step of the Conjoint Board as not politic.

Dr. MACALISTER said that this question had been considered by the Education Committee and the answer was that in so far as it was a piece of machinery created by the Council for the purpose of carrying out its duties under the Act it might be held that they had a right to enforce conditions of registration, but it was quite clear that there was no specific clause in the Act which referred to it.

Sir DYCE DUCKWORTH said it was evident, therefore, that the reply of the Colleges was quite correct. The Colleges did not recognise a power on the part of the Council to impose these things upon them. They thought that they were entitled to be the judges of their own curricula and they did not recognise the right of the Council to interfere. He assured the Council that when Mr. Bryant and he spoke last year they did so after being well advised. As to Clause 20 of the Act of 1858 he would point out that an appeal to the Privy Council was only justified when the General Medical Council was of opinion that the curricula of the bodies and the teaching secured by the curricula were not such as to secure the possession by persons obtaining the qualification of the requisite knowledge and skill for the efficient practice of their profession—that was to say, that the Council would require evidence of ignorance on the part of candidates who came before the bodies. He did not think that, so far, the students of the two Colleges had displayed this ignorance.

Mr. BROWN said that Clause 18 ("Council may require information as to course of study, &c., required for obtaining qualifications") must be read in connexion with Clause 20.

Sir DYCE DUCKWORTH assured the Council that the Royal Colleges were quite ready to furnish this information. As to the institutions recognised, they claimed that they were as good as other institutions and the Royal Colleges claimed that they had done good work in clearing the medical curriculum of these preliminary subjects, so as to leave students four full years for proper medical work. It was within their knowledge that in some of the schools adversely commented upon there were means of equipment and of teaching which did not exist in the medical schools, and the masters in many of them were men of great eminence fully capable of teaching these subjects.

Mr. BRUDENELL CARTER said he was not quite clear as to the point which they were at the present moment debating—whether it was the desirability or otherwise of the plan of the Royal Colleges or the question of the power of the Council to bring about an alteration. He confessed that he had never regarded the Council as a body whose proceedings were to be confined altogether within the four corners of its statutory powers. He had always looked upon it as a conference at which the representatives of the licensing bodies were able to meet and discuss methods and principles of education and give and take a little, and in connexion with which it was not unbecoming for the representatives of corporations, even the most distinguished, to lay before the rulers of these corporations that there were certain circumstances which, in the opinion of this Council, might render it expedient to waive considerations of strict right and be guided by considerations of policy. He should very much regret if the Royal Colleges upon such an occasion as this were to make any attempt to stand upon the letter of their strict rights—of even determined strict rights. He thought it would be more graceful to yield to the opinion arrived at after due discussion and consideration of the majority of the Council. The corporation which he had the honour to represent—the Society of Apothecaries—had not adopted the plan of the Royal Colleges and had carried out always the wishes of the Education Committee in their entirety; they did not recognise these schools. One difficulty in the way of these schools was that while they were numerous competent teachers of science were not numerous and he hoped the Royal Colleges would see their way to bring themselves into line with the other bodies and with the opinion of the great majority of the members of the Council.

Dr. PETTIGREW appealed to the Royal Colleges to reconsider their position.

Dr. LEECH said there was the school chemistry and the chemistry required by a medical student, and the two were very different, and he knew that the technical schools in his neighbourhood did not teach the latter, although they announced that they gave the chemistry for the examination of the Conjoint Board.

Sir CHRISTOPHER NIXON insisted that if they yielded to the Royal Colleges in this matter they would soon have all the corporations in the country taking their own view of things.

Dr. HERON WATSON pointed out that the five years' curriculum had been established without objection on the part of these bodies and now they said it did not pay. The Council did not care whether it paid an examining body or not; what they were concerned about was that men should be fully equipped for the work of the profession, and he deeply regretted the action of the Royal Colleges in this matter.

Dr. MACALISTER suggested to Sir William Thomson that his motion should take this form—

> That the President be requested to communicate to the Royal Colleges the decision of the Council to adhere to its regulation of June 7th, 1899, respecting the registration of medical and dental students and to invite these Colleges to take the matter into fresh consideration in view of its important bearing upon the maintenance of the standard of study and examination in the country at large.

Sir WILLIAM THOMSON said he was quite prepared to adopt this form of motion.

The original motion was accordingly withdrawn and this substituted.

Sir DYCE DUCKWORTH said there was a complete change of front on the part of the Council since its last meeting. Had the Council addressed the Colleges in those terms six months ago it was quite possible that the replies would have been absolutely different.

Sir WILLIAM THOMSON, exercising his right of reply, said he shared the regret of other speakers that, so far as could be gathered from the representatives of the two Colleges, they were not likely to get very much farther upon this question without coming into direct collision. He was extremely sorry for this because of the great regard and respect which he had for the two great institutions. It must have occurred to many members of the Council that if the Royal Colleges thought so much of their plan they ought to have put it before the Council two or three years ago and advocated it for general acceptance. The question at present before the Council was not the quality of the schools recognised. That was a question he should be prepared to discuss at the proper time. The question was that the Council had come to a certain determination and had formulated a certain regulation and that they believed this regulation to be binding upon all the bodies under their control; they asked these bodies to obey it and they refused. In these circumstances the Privy Council was the only resource. The Council could not stand in the position of making rules one day and having them defied the next. He hoped, however, that the intervention of the President in the manner proposed might result in an understanding.

The motion in the form suggested by Dr. MacAlister was then put to the Council, whereupon the President declared it to be carried by 22 votes to 1.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the First Professional Examination for the Diploma of Fellow in Anatomy and Physiology, viz.:—

Donald John Armour, M.B., B.A. Toronto, M.R.C.S. Eng., L.R.C.P. Lond., Toronto University and University College, London; Leonard Bousfield, B.A. Cantab., Cambridge University and London Hospital; Elmore Wright Brewerton, M.R.C.S. Eng., L.R.C.P. Lond., St. Bartholomew's Hospital and King's College, London; Ernest Rock Carling, Westminster Hospital; Edgar Godfrey Carpenter, M.R.C.S. Eng., L.R.C.P. Lond., D.P.H. Cantab., St. Bartholomew's Hospital; Joseph Cunning, M.B. & B.S. Melb., Melbourne University, St. Bartholomew's Hospital, and King's College, London; John Shields Fairbairn, M.R.C.S. Eng., L.R.C.P. Lond., M.B., Ch.B. Oxon, Oxford University, and St. Thomas's Hospital; Allan Johnston Fairlie-Clarke, B.A. Cantab., Cambridge University, and St. Bartholomew's Hospital; Walter John Henry Hislop, M.R.C.S. Eng., L.R.C.P. Lond., M.B., C.M. Edin., Edinburgh University, King's College, and London Hospital; Adrian Russell Fortescue Hubbard, Charing-cross Hospital; Harold Rowe Jeremy, London Hospital; Frederick John McCann, M.D., C.M. Edin., M.R.C.P. Lond., Edinburgh University and King's College, London; John Cuthbert Matthews, B.A. Cantab., Cambridge University and University College, Liverpool; Thomas Richard Mulroney, M.R.C.S. Eng., M.D. & M.C. Malta, L.R.C.P. & S. Edin., Bombay, Edinburgh, and King's College, London; Lorimer Gifford Nash, Guy's Hospital; Vincent Blumhardt Neafield, St. Mary's Hospital; Paul Norman Blake Odgers, B.A. Oxon., Oxford University and Guy's Hospital; Arthur Percy Parker, M.B., B.Ch. Oxon., Oxford University and Middlesex Hospital; Charles Seymour Parker, University College, London; Frederick Henry Parker, B.A. Cantab., Cambridge University and Guy's Hospital; Albert Edward Pinniger, Middlesex Hospital; Louis Bathe Rawling, M.R.C.S. Eng., L.R.C.P. Lond., M.B., B.C. Cantab., Cambridge University and St. Bartholomew's Hospital; Charles Newton Sears, St. Thomas's Hospital; John Custance Shaw, M.R.C.S. Eng., L.R.C.P. Lond., St. Bartholomew's Hospital; John Edgar Simpson, M.R.C.S. Eng., L.R.C.P. Lond., University College, London; John Leeming Stephenson, St. Mungo's College, Glasgow; Edward Simmons Steward, M.R.C.S. Eng., L.R.C.P. Lond., Yorkshire College, Leeds, St. Bartholomew's Hospital, and King's College, London; George Orissa Taylor, London Hospital; Frank Leslie Thomas, Guy's Hospital; George William Thompson, M.B., C.M. Edin., Edinburgh University and King's College, London; Bernard Joseph Ward, Queen's Faculty of Medicine, Mason College, Birmingham; and John Wharton, B.A. Cantab., Cambridge University and Owens College, Manchester.

Seventy-four gentlemen presented themselves for this examination, 32 of whom passed and 42 were referred to their professional studies for six months.

The following gentlemen passed the Preliminary Science Examination for the licence in Dental Surgery, in Chemistry, Physics, and Practical Chemistry:—

Frederick George Day, Guy's Hospital; William James, Middlesex Hospital, and Frederick William Targett, East London Technical College, People's Palace.

Six gentlemen were referred to their professional studies for three months.

FOREIGN UNIVERSITY INTELLIGENCE.—*Bologna*: Dr. Alfonso Poggi has been promoted to the ordinary Professorship of Surgical Pathology.

MR. C. T. DENT, surgeon to St. George's Hospital, has left for Cape Town.

MR. JOHN J. WEAVER, M.R.C.S. Eng., L.S.A., has been re-elected chairman of the Southport Health Committee (after re-election to the Council).

BRISTOL ROYAL INFIRMARY.—At a special meeting of the committee of the Bristol Royal Infirmary held on Nov. 28th it was decided to sell sufficient capital stock to provide £8000 to be applied towards the cost of the nurses' home and laundry.

DRAINAGE OF TRURO.—Complaints having been made to the Local Government Board under Section 299 of the Public Health Act (1875) that the Truro Town Council have not provided sufficient sewers, a Local Government Board inquiry will be held at Truro by Colonel Langton Coke during the present month. The county council are taking the initiative in the matter.

TYPHOID FEVER AT TODMORDEN.—There is a serious outbreak of typhoid fever at Todmorden. There are said to be 44 cases in hospital and at least as many again are being treated at home. On Nov. 25th the authorities were compelled to engage the Volunteer drill-hall, which will accommodate about 60 patients, as a temporary hospital. Polluted water is said to be the cause of the outbreak.

INCENTIVES TO RESEARCH.—A Reuter's telegram published in the *Westminster Gazette* says that the Institute of France has received from M. Osiris a sum sufficient to supply a triennial prize of 100,000 francs to be awarded in recognition of the most remarkable work or discovery from the point of view of general interest. The donor makes special reference to the fields of medicine and surgery.

PREVENTION OF TUBERCULOSIS.—At a meeting of the executive council of the Devon and Cornwall Branch of the National Association for the Prevention of Consumption and Other Forms of Tuberculosis recently held in Plymouth it was stated that over 7000 leaflets in reference to tuberculosis had been distributed in the large hospitals and dispensaries of the two counties. A meeting of the association will be held at Ilfracombe in December.

DEVON QUEEN VICTORIA COMMEMORATION FUND.—At a meeting of the council of this fund held at Exeter on Dec. 1st, under the presidency of the Earl of Morley, it was stated that about £6450 had now been raised. The income of this amounts to £270, which will be devoted to various hospitals and infirmaries in the county of Devon. Further subscriptions are much needed and should be sent to the honorary treasurer, Mr. Walrond, the Exeter Bank. Hospitals desirous of obtaining a grant should communicate with the honorary secretary, Mr. Michelmore, 20, Cathedral-yard, Exeter.

THE DURHAM COUNTY SANATORIA.—At a meeting of the Executive Committee of the Society for the Prevention and Cure of Consumption in the county of Durham Dr. W. Robinson was appointed chairman for the coming year. It was also agreed that the honorary secretaries should be authorised: (*a*) to accept the offers of the Ecclesiastical Commissioners to grant a lease of Horn Hall, Stanhope, for a temporary sanatorium for seven years at £40 per annum, and also of nine acres of land near Stanhope as the site for a permanent sanatorium for 999 years at £5 per annum; and (*b*) to call in the promised donations and subscriptions. Sub-committees were appointed for the following purposes: (*a*) to arrange for canvassing for further subscriptions; (*b*) to meet the agent of the Ecclesiastical Commissioners at Stanhope on Dec. 16th and arrange for altering, repairing, and taking possession of Horn Hall forthwith; (*c*) to select a resident medical superintendent and staff; and (*d*) to draw up rules and by-laws for the society.

THE ROYAL INSTITUTION.—The Court of the Goldsmiths' Company, having regard to the fact that the Royal Institution of Great Britain has lately celebrated its centenary, have marked their sense of the importance of the event by making to the institution the further grant of £1000, for the continuation and development of original research, and especially for the prosecution of further investigations of the properties of matter at temperatures approaching that of the absolute zero of temperature.

PRESENTATIONS TO MEDICAL MEN.—A dinner was held at the Café Royal on Nov. 30th at which Dr. Morgan Dockrell was the guest of the evening. Professor B. C. Windle presided and proposed the toast of "Our Guest" in a witty speech. He concluded by presenting Dr. Dockrell with an illuminated address and a service of silver plate subscribed for by a large number of medical brethren and friends as a mark of esteem and in recognition of Dr. Dockrell's recent action in the law courts to check the unauthorised use of his name in trade advertisements. Dr. Dockrell, in responding, expressed his gratitude to the subscribers, and took the opportunity of explaining several points of interest in the case which had previously not been generally understood. The evening ended with an entertainment given by Mr. Franklin Clive, Mr. John Le Hay, Mr. Kift, and Mr. Byrd-Page.—Mr. H. O. Nicholson, M.B., C.M. Aberd., of Victoria-road, Kirkcaldy, has been the recipient from his patients and friends, on the occasion of his forthcoming marriage, of a revolving bookcase, a number of valuable medical books, and a revolving chair.—At the autumn intermediate meeting of the Lancashire and Cheshire Branch of the British Medical Association, held in the Medical Institution rooms on Nov. 29th, Mr. James Barr, M.D. Glasg., L.R.C.S. Edin., M.R.C.P. Lond., of Rodney-street, Liverpool, was presented with a valuable service of plate, suitably inscribed, in acknowledgment of his services as honorary secretary of the branch during a period of seven years.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ACLAND, H. T. D., L.R.C.P., M.R.C.S., has been re-appointed House Surgeon to St. Thomas's Hospital.

ADAMS, A. J. B., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital.

BEALE, H. R., L.R.C.P., M.R.C.S., has been appointed Assistant House Physician to St. Thomas's Hospital.

BELFRAGE, S. H., M.B. Lond., has been appointed Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital.

BEVAN, A., L.R.C.P., M.R.C.S., has been re-appointed House Physician to St. Thomas's Hospital.

BOASE, RICHARD DAVEY, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Madron and Ludgvan Urban Districts, Cornwall, vice J. Quiller Couch, resigned.

BOURDAS, E. C., L.R.C.P., M.R.C.S., has been re-appointed Assistant House Surgeon to St. Thomas's Hospital.

BUTTERFIELD, FRANK, M.B. Lond., has been appointed Junior House Surgeon to the Blackburn and East Lancashire Infirmary.

BUZZARD, E. F., M.A., M.B., B.Ch. Oxon., M.R.C.P. Lond., has been appointed Clinical Assistant in the Electrical Department at St. Thomas's Hospital.

CLARKE, H. H. R., L.R.C.P., M.R.C.S., has been appointed Junior Obstetric House Physician to St. Thomas's Hospital.

DUDGEON, L. S., L.R.C.P., M.R.C.S., has been appointed Assistant House Physician to St. Thomas's Hospital.

ELLIS, F. H., B.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed House Physician to St. Thomas's Hospital.

EVANS, ARTHUR H., M.D., B.S. Lond., F.R.C.S. Eng., has been appointed Senior Surgeon to the East Dispensary, Liverpool.

FAIRWEATHER, WM. ERNEST, L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Jessop Hospital for Women, Sheffield.

GATES, E. A., L.R.C.P., M.R.C.S., has been re-appointed Assistant House Surgeon to St. Thomas's Hospital.

GREG, A. H., B.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been re-appointed House Physician to St. Thomas's Hospital.

GUNN, ALBERT A., M.B., Ch.B. Edin., has been appointed Senior House Surgeon to the Blackburn and East Lancashire Infirmary.

HARRISON, ALFRED JAMES, M.B., Lond., M.R.C.S., L.S.A. has been re-appointed Honorary Physician to the Bristol General Hospital.

HELLIER, JOHN B., M.D. Lond., M.R.C.S., has been appointed Honorary Obstetric Physician to the Leeds General Infirmary, vice J. Braithwaite.

HIGGINS, ALEXANDER G., M.R.C.S., has been appointed Assistant House Surgeon at the West Kent General Hospital, Maidstone.

HOWLETT, B. F., L.R.C.P., M.R.C.S., has been appointed House Physician to St. Thomas's Hospital.

JONES, A. WEBB, L.R.C.P., M.R.C.S., has been re-appointed Assistant House Surgeon to St. Thomas's Hospital.

LUCAS, S. A., L.R.C.P., M.R.C.S., has been re-appointed House Surgeon to St. Thomas's Hospital.

NICHOLSON, H. GILBERT, M.R.C.S., L.S.A., has been appointed Honorary Medical Officer to the Queen Adelaide's Dispensary, Bethnal Green, London.

PAGE, HERBERT W., M.C. Cantab., has been appointed Examiner in Surgery in the University of Oxford.

PERRIN, T., L.R.C.P., M.R.C.S., has been re-appointed Clinical Assistant in the Special Deprtment for Diseases of the Skin at St. Thomas's Hospital.

PHILLIPS, H. J., L.R.C.P., M.R.C.S., has been re-appointed House Surgeon to St. Thomas's Hospital.

SARGENT, P. W. G., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been re-appointed House Surgeon to St. Thomas's Hospital.

SYMES, JOHN ODERY, M.D., L.R.C.P. Lond., D.P.H., M.R.C.S., has been appointed Second Assistant Physician to the Bristol General Hospital.

TAKAKI, Y., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Special Departments for Diseases of the Ear and the Skin at St. Thomas's Hospital.

THWAITES, G. B., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Senior Obstetric House Physician to St. Thomas's Hospital.

UNSWORTH, N., L.R.C.P., M.R.C.S., has been re-appointed Assistant House Surgeon to St. Thomas's Hospital.

WHITELOCKE, R. H. ANGLIN, M.B., M.C. Edin., F.R.C.S. Eng., has been appointed Surgeon to the Radcliffe Infirmary, Oxford, vice Mr. A. Winkfield, resigned.

WIGG, JAMES, L.R.C.P. Lond., has been appointed District Medical Officer for Ward 2 of the Parish of St. Pancras.

Vacancies.

For further Information regarding each vacancy reference should be made to the advertisement (see Index).

BOROUGH OF BOOTLE, HOSPITAL FOR INFECTIOUS DISEASES.—Resident Medical Superintendent, unmarried. Salary £120 per annum, with board, washing, and apartments in the Hospital. Apply to the Town Clerk, Town Clerk's Office, Bootle.

BRISTOL ROYAL HOSPITAL FOR SICK WOMEN AND CHILDREN.—House Surgeon. Salary £100 per annum, with rooms and attendance (not board).

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn-road, W.C.—House Surgeon. Board and residence provided in the hospital.

CITY OF LEEDS, BECKETT-STREET FEVER HOSPITAL.—Resident Medical Officer for one year. Salary £150 a year, with board, lodging, and washing.

CITY OF YORK.—Medical Officer of Health. Salary £400 per annum. Apply to the Town Clerk, Guildhall, York.

DORSET COUNTY HOSPITAL, Dorchester.—House Surgeon, to reside and board in the hospital, unmarried. Salary £100.

GENERAL INFIRMARY, Leeds.—Honorary Assistant Ophthalmic and Aural Surgeon.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Junior House Physician for six months. Salary at the rate of £30 per annum, with board, lodging, and washing in the hospital. Also Assistant Anæsthetist for six months. Honorarium at the rate of 10 guineas per annum.

GREENOCK INFIRMARY.—House Surgeon and an Assistant House Surgeon. Salary £60 and £40 respectively, with board and residence in the house.

GUEST HOSPITAL, Dudley.—Senior Resident Medical Officer. Salary commencing at £100 per annum, rising by £10 a year conditionally, with board, residence, attendance, and washing.

HARRIS PARISH COUNCIL FOR THE SOUTHERN DIVISION OF HARRIS.—Medical Officer and Public Vaccinator. Salary £90, other emoluments. Apply to the Solicitor, Mr. T. Wilson, Lochmaddy, Clerk.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, London.—Resident Medical Superintendent for one year. Salary 100 guineas per annum, with board and residence in the Hospital. Also House Surgeon for six months. Salary £20, with board and residence in the Hospital. Also House Physician for six months, unmarried. Salary £20, with board and residence in the Hospital.

HOSPITAL FOR WOMEN AND CHILDREN, Leeds.—Honorary Surgeon.

HULL ROYAL INFIRMARY.—Junior Assistant House Surgeon, for one year. Salary £40, with board and lodging.

KENT AND CANTERBURY HOSPITAL, Canterbury.—House Surgeon and an Assistant House Surgeon, unmarried. Salary House Surgeon £90 the first year, rising to £100 the second year, with board, &c. Salary Assistant House Surgeon £50, with board, &c.

LEWES DISPENSARY AND INFIRMARY AND VICTORIA HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with furnished apartments, board, coal, gas, and attendance.

LINCOLN LUNATIC HOSPITAL.—Assistant Medical Officer. Salary £100, with board and washing.

NORFOLK AND NORWICH HOSPITAL, Norwich.—House Physician for two years, unmarried. Salary £80 a year, with board, lodging, and washing.

NORTH-EASTERN HOSPITAL FOR CHILDREN, London.—House Physician for six months. Salary at the rate of £50 per annum. Apply to the Secretary, City Office, 27, Clement's-lane, E.C.

NORTHUMBERLAND, DURHAM, AND NEWCASTLE INFIRMARY FOR DISEASES OF THE EYE.—Honorary Surgeon.

NOTTINGHAM GENERAL DISPENSARY.—Clinical Assistant. Salary £60 for six months (renewable). Special arrangements for board, &c.

PARISH OF ST. MARY, Islington.—Medical Officer for No. 2 Upper Holloway Central District. Salary £100 per annum, with certain extra medical fees and subject to statutory deductions.—Apply to the Clerk, Guardians' Offices, St. John's-road, Upper Holloway.

PONTEFRACT GENERAL DISPENSARY AND INFIRMARY.—Resident Medical Officer. Commencing salary £150 per annum, with furnished rooms, fire, lights, and attendance.

QUEEN ADELAIDE'S DISPENSARY, Pollard-row, Bethnal-green, London.—Resident Medical Officer, unmarried. Salary £100 per annum, with furnished apartments, coal, gas, and attendance.

RICHMOND UNION, Surrey.—Medical Officer and Public Vaccinator for the District of Mortlake. Salary £90 per annum, in addition to certain extra fees, subject to statutory deductions. Apply to the Clerk to the Guardians, The Green, Richmond, Surrey.

RIPON DISPENSARY AND COTTAGE HOSPITAL, Ripon.—Resident House Surgeon and Dispenser, unmarried. Salary £70 first year and advancement subsequently, with board and lodging.

ROYAL COLLEGE OF PHYSICIANS, London.—Milroy Lecturer for 1901.

ROYAL OPHTHALMIC HOSPITAL, City-road, London.—Senior House Surgeon. Salary £75, with board and residence in the hospital. Also Curator and Librarian. Salary £150. Also Junior House Surgeon. Salary £50, with board and residence in the hospital. Also Junior Out-patient Surgical Officer. Salary £50.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House Surgeon for six months. Salary at the rate of £50 per annum, with rooms, board, and washing.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—House Surgeon. Salary £100, with board and residence.

SUSSEX COUNTY HOSPITAL, Brighton.—Assistant House Surgeon, unmarried. Salary £30 per annum, with board and residence in the hospital.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea, and VICTORIA CONVALESCENT HOME, Broadstairs.—House Surgeon for six months. Honorarium £25, with board and lodging in the hospital.

Births, Marriages, and Deaths.

BIRTHS.

ABERNETHY.—On Dec. 1st, at St. Colme-street, Edinburgh, the wife of Robert Abernethy, M.D., F.R.C.P.E., of a daughter.

BROADBENT.—On Dec. 3rd, at Seymour-street, the wife of John F. H. Broadbent, M.D. Oxon., of a daughter.

CHAWNER.—On Dec. 2nd, at Hill House, Clay Cross, the wife of Alfred Chawner, L.R.C.P., M.R.C.S., of a son.

COOKE.—On Nov. 30th, at Abington-street, Northampton, the wife of A. W. Cooke, M.R.C.S., L.R.C.P., of a daughter.

DAVIS.—On Dec. 2nd, at Sidcup, Kent, the wife of George William Davis, M.D., of twin sons.

LAVER.—On Dec. 2nd, at Dedham, Colchester, the wife of J. W. Laver, M.R.C.S., L.R.C.P, of a daughter.

MATHESON.—At Duntulm, North Berwick, on Nov. 29th, the wife of Angus Matheson, M.D., of a son.

RATTRAY.—On Nov. 30th, at Pemberton-gardens, London, N., the wife of P. Whyte Rattray, F.R.C.S., of a daughter.

RITCHIE.—On Dec. 2nd, at Beaumont-street, Oxford, the wife of James Ritchie, M.D., of a daughter (stillborn).

TOWNSEND.—On Nov. 17th, at Queen-street, Hammersmith, the wife of Meredith Milton Townsend, M.R.C.S., L.R.C.P., of a son.

TURNEY.—On Dec. 5th, at Portland-place, W., the wife of H. G. Turney, M.D., of a son.

MARRIAGES.

FINCH—HEISCH.—On St. Andrew's Day, at the Parish Church, Preston, Brighton, Sussex, Alexander Henry Finch, M.R.C.S., L.R.C.P., of Market Harborough, Leicestershire, to Mary Adeline, younger daughter of the late Lieutenant Horace John Heisch, of H.I.M. Indian Army, Bombay.

LYON—RUSSELL.—On Dec. 5th, at St. James's, Westminster, John Lyon, M.D., Fleet Surgeon, Royal Navy, to Josephine H. Russell, Claremont Drive, Timperley.

NICHOLSON—NAIRN.—On Dec. 5th, at Dysart House, Fife, Henry Oliphant Nicholson, M.B., M.S., second son of the late Professor Alleyne Nicholson, M.D., D.Sc., F.R.S., of Aberdeen University, to Effie, fourth daughter of Michael B. Nairn, of Rankeilour and Dysart House.

PILCHER—GARDNER.—On Dec. 6th, at Christ Church, Wanstead, Colonel J. G. Pilcher, F.R.C.S., Indian Medical Service, retired, to Elizabeth Emma, daughter of George Gardner, of Fellside, Snaresbrook, Essex.

STEWART—LIGHT.—On Dec. 5th, at St. Martin-in-the-Fields, Charles Howard Stewart, M.R.C.S., L.R.C.P., L.S.A., of Witheridge, North Devon, to Grace, youngest daughter of Jabez Light, of Kenley Court, Kenley, Surrey.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

THE DIAGNOSIS OF SCARLET FEVER: A QUESTION OF ETIQUETTE.

To the Editors of THE LANCET.

SIRS,—On Oct. 2nd I was called to visit a young woman suffering from tonsillitis. After a week's attendance I diagnosed scarlet fever and reported the case. There being other families in the house with children the patient was removed to Tottenham Fever Hospital and I heard nothing more till this morning when she walked into my surgery and said she had been discharged from the hospital after a month's detention and they had told her that she had not had scarlet fever. She said she was placed in the same ward as the other scarlet fever cases, some of which were very severe, and that there were several other cases, some of them marked "Doubtful," in the same ward. She said her bed-ticket was not marked "Doubtful," but "Scarlet fever with complications." I desire your opinion on three points: 1. Had there been any doubt in this and other cases, would not the proper plan have been to have placed them in a separate ward until a definite opinion had been formed? 2. If she was not convalescent from scarlet fever, why did it not develop while in hospital, as she had not previously had it? 3. Do you consider it right for the hospital staff to afterwards inform such patients that they have not had scarlet or other fever and consequently infer they have been improperly sent away from home, thus damaging the reputation of the medical man who notified the case? I consider this is a serious matter and one for which the hospital authorities ought to be held responsible. I have always tried to act conscientiously in these matters and never report a case unless I feel convinced it is infectious. Of course, it is possible a mistake may occur, and the medical man as a rule has not much chance of observing the case but *must* notify *immediately* under a penalty in case of neglect; but I do feel strongly that it is not the right thing for the hospital staff afterwards to inform the patients or infer that they have been wrongly sent to hospital.

I am, Sirs, yours faithfully,

London, Nov. 13th, 1899. ROBERT H. RAINS.

*** (1) Yes, there should be accommodation for such doubtful cases though no great protection would thus be afforded. (2) It appears probable that the woman was protected by a previous attack. (3) In the circumstances detailed by Mr. Rains it was wrong that such a statement should be made by the hospital staff.—ED. L.

WANTED A HOME.

To the Editors of THE LANCET.

SIRS,—Could you or any of your readers inform me where a boy, about 10 years of age, who is stone deaf in one ear and has only very slight hearing in the other, could be taken in for three or four years and taught to speak, read, and write? He can talk a little but he has been very badly neglected and is extremely backward for his age. His parents are poor but would be willing to pay a small sum to keep him at home for some years.

I am, Sirs, yours faithfully,

CHARLES MILNE (Captain I.M.S.).

Jaunpur, North-West Provinces, India, Nov. 16th, 1899.

THE REMUNERATION OF MEDICAL OFFICERS TO THE TEA PLANTATIONS OF ASSAM.

To the Editors of THE LANCET.

SIRS,—I notice in THE LANCET of Sept. 16th (just to hand) an advertisement by the Dehing Tea Company, Assam, for a medical man to attend their gardens, the salary offered being Rs. 150, 200, and 250 monthly for first, second, and third years respectively, and I write this to warn medical men in England from accepting any such offer. As a tea-garden medical officer of several years' experience they may take it from me that it is impossible to live in Assam on a salary of Rs. 150 monthly or even to keep up the position as a medical man on Rs. 250 monthly. To begin with, when the practitioner arrives on the garden he must have funds to furnish his bungalow and this will cost hi anything from Rs. 200 upwards. He may have to buy one or more horses, which cost in Calcutta, for country-bred horses, Rs. 250, Walers Rs. 650 (upwards), the freight from Calcutta to Dibrugarh, Rs. 100; he would also have to buy a saddle, bridle, &c., which would cost at least Rs. 70. So much for outlay on arrival. As to his monthly expenditure, he must have a cook, Rs. 25; a table servant, Rs. 12; his washing, Rs. 10; and at least one other servant, Rs. 6. Food for one horse (at present rates) Rs. 20. Then it is usual in Assam to give your cook from Rs. 12 to Rs. 15 a week for your ordinary messing, but this does not include any jams, condiments, or tinned provisions, all of which are very expensive here, but at the same time very necessary to supplement the otherwise monotonous food put on your table. The above figures will bring his monthly expenditure up to at least Rs. 121, leaving a balance during his first year of Rs. 29 to pay for beer or whisky, tobacco, tinned provisions subscription to tennis or polo club, &c. He must also dress as becomes a member of his profession, and as the climate is a most unhealthy one he must have at least one trip on the river

each year which will cost him from Rs. 150 to Rs. 200. But, Sirs, the above figures only give what a man might do if he lived so carefully as to keep his expenditure within these bounds, but such men are not to be found in Assam, the trying climate demands more latitude. I must say I am surprised at any tea company expecting to get a medical man on such terms when assistants on gardens without any special education or qualification receive for the first year Rs. 150 and Rs. 25 horse allowance; in my own district no assistant gets even so low a figure. The usual salary for a medical man to a group of tea-gardens is from Rs. 400 monthly upwards, and I would strongly advise no medical men to come out under that figure for the first year. As to other items in the advertisement, everyone, from assistants upwards, gets a free bungalow and four servants, but even assistants get *first* class passages out from England. In conclusion, I must apologise for trespassing so far on your valuable space, but my only excuse is to try to save men from coming out on such terms, which mean nothing but misery and degradation, as I have seen before.

I am, Sirs, yours faithfully,

Assam, Oct. 14th, 1899. M.B., C.M.

P.S.—I have only estimated for one horse, but from the allowance given it is evident that he must keep two. This would mean another Rs. 20 for food and Rs. 6 for man.

THE MEDICAL AND DENTAL PROFESSIONS.

To the Editors of THE LANCET.

SIRS,—One reads so much in the columns of THE LANCET of what is and what is not professional etiquette between one medical man and another that I am inclined to ask, "To what extent does professional etiquette extend between the medical man and the dentist?" Perhaps some of your readers would give their opinion on the under-mentioned cases. It is a fact that a qualified dentist has to put up with such cases.

Is it professional (*a*) for a medical man to recommend his patients to visit an unregistered man? (*b*) for a medical man to administer an anæsthetic to an unregistered man covered by a registered man? (*c*) for a medical man to request a patient to make arrangements for a chloroform case and because the dentist suggests H_2O to make an appointment with another man without first consulting with the first-named? and (*d*) for a medical man to advise the extraction of teeth and urge the patient to allow him to do it himself?

In all cases no fewer than five registered men live within a radius of two miles. Two of them hold the qualification of L.D.S. Eng. Personally I consider the time has arrived when the medical men should consider the qualified dentist "one of us."

I am, Sirs, yours faithfully,

Nov. 6th, 1899. E.

"BEWARE!"

WE have had several communications showing that the advance agent of a new insurance company, to whose proceedings we referred last week, is still busy in the Midlands. He has been at Sheffield and Leeds this week and now gives an address in Birmingham. We have received his prospectus, and we have only to recommend that no money and no promises of support should be given to him.

AN INSTITUTION FOR THE WEIR-MITCHELL TREATMENT.

To the Editors of THE LANCET.

SIRS,—Can any reader of THE LANCET inform me if there is any institution, &c., within fairly easy distance of Nottingham, where a lady can be treated by the Weir-Mitchell system?

I am, Sirs, yours faithfully,

Nottingham, Nov. 30th, 1899. J. MALCOLM LYON.

AMERICAN INSURANCE SOCIETIES.

To the Editors of THE LANCET.

SIRS,—With regard not only to the Anglo-American Insurance Company, which at present seems to be *in nubibus*, but to all insurance societies having their chief office in the United States, it may be useful to your readers to know that the premiums thereon are not allowed as deductions for income-tax purposes. Ignorance on this point justifies me subscribing myself

Yours faithfully,

London, Dec. 4th, 1899. A VICTIM.

"CAMPHORADINE."

LIEUTENANT-COLONEL H. ST. CLARE CARRUTHERS, I.M.S., Medical Storekeeper to Government, Madras Command, in reference to a query which appeared in THE LANCET of Sept. 9th, p. 755, *re* the composition of camphoradine or camphoradyne, gives the following formulæ. *Prescription No. 1.*—Camphor in powder, one ounce; chloroform, two ounces; oil of peppermint, four drachms; tincture of cannabis indica, two ounces; and tincture of capsicum, one and a half ounces. Mix. *Prescription No. 2.*—Hydrochlorate of morphia, 32 grains; dilute hydrochloric acid, four drachms; and aqua distillata to one ounce. Mix the acid with the water and then add the morphine and dissolve by the aid of heat. *Prescription No. 3.*—Dilute hydrocyanic acid one ounce; mucilage of acacia (B.P.), one and a half ounces; treacle, five ounces; and syrup (B.P.), a sufficiency. Put five ounces of treacle into a clean bottle, add the mucilage and dilute hydrocyanic acid, then prescription No. 2, and lastly, prescription No. 1. Shake well and add syrup to make 16 fluid ounces. Dose, from 15 to 30 minims.

"THE FOOD OF THE FEEDING COW."

To the Editors of THE LANCET.

SIRS,—In reply to Mr. Wm. Shackleton's letter in THE LANCET of Dec. 2nd it is my experience that cabbage will do no harm to the milk used for a baby's food unless given to the cows in large quantities, and this holds good also of turnip and oilcake, as I know from 25 years' experience. Cows at this time of the year if turned out to grass lose their milk, so mine are not allowed out; they get twice a day three large turnips or two heads of cabbage and a "tub" of chopped hay, Indian meal or oats, bran, and a small quantity of oilcake.

I am, Sirs, yours faithfully,

PERCY B. STONEY, M.R.C.S. Eng., &c.

Millom, Dec. 4th, 1899.

MILK STERILISERS.

To the Editors of THE LANCET.

SIRS,—Will you or your readers kindly inform me which is the best milk steriliser for an asylum, hospital, or other large institution, and oblige,

Yours faithfully,

Exeter, Dec. 1st, 1899. R. L. RUTHERFORD.

"SLENDER ARMS."

THE *Medical Review* of Lincoln, Nebraska, is responsible for the following story:—

> "The attention of English-speaking visitors to the Milan Cathedral is readily attracted by the following notice which appears over an alms-box: 'Appele to Charitables. The Brothers, so-called, of Mercy ask slender arms for the Hospital. They harbor all kinds of diseases, and have no respect to religion.'"

Mr. M. T. Vienna.—The articles referred to on page 156 in the reprint of THE LANCET Special Commission on Water-Supply and the Disposal of Sewage in Rural Districts will be found in the Students' column of the *Builder*, sub-headed "Rural Drainage." The article runs through the whole of the half-yearly volume, commencing in July, 1896.

C. A. G. should consult Jordan's map, which shows very well the geological formation of London and its environments. The map, or "geological model" as it is called, is published by Edward Stanford, 26 and 27, Cockspur-street, W.C. C. A. G.'s medical adviser can tell him what soils, &c., have a bad influence on rheumatic subjects.

Asterion.—Information concerning the alleged improper use of an unqualified assistant should be given to the General Medical Council. We cannot advise A about making a charge for the "consultation" which he describes. Legally he can charge nothing, so that his conduct must depend upon his relations with B.

N. A. B.—The London and Counties Medical Protection Society (offices: 12, New Court, Lincoln's-inn, W.C.) and the Medical Defence Union (offices: 4, Trafalgar-square, W.C.). Our correspondent should write to the secretaries for particulars and make his choice between the two.

Stars and Stripes.—All the American medical degrees that are recognised by the best American universities are recognised in England. The only American degrees that have been spoken contemptuously of were the "bogus" degrees of sham universities.

C. E. H.—We understand that the War Office has no further need of civil medical assistance at the seat of war, but our correspondent might apply.

Dr. F. M. Pope.—We are much obliged for the communication, which we wish that we had received in time for publication in the obituary.

L.R.C.P. & S. Irel. will find the matter dealt with in a leading article in THE LANCET of August 17th, 1895, p. 412.

Mr. D. Elyard-Brown will find plentiful observations on the subject in medical literature.

Clifton.—We believe there is some truth in the rumour.

R. G.—We do not give medical advice.

During the week marked copies of the following newspapers have been received: *Hereford Mercury, New York Herald (Paris), Bradford Observer, Western Mail, Scotsman, Sun (London), Newcastle Daily Chronicle, West Morning News, Burnley Gazette, Blackburn Daily Telegraph, Leicester Daily Post, Times of India, Pioneer Mail, Citizen, Architect, Leeds Mercury, Brighton Gazette, Builder, Liverpool Daily Post, Bromyard News, Bristol Mercury, Tunbridge Wells Weekly Express, Yorkshire Post, Birmingham Daily Post, Glasgow Herald, Manchester Courier, Sheffield Independent, West Sussex Gazette, Oswestry Advertiser, Methodist Recorder, Midland Daily Telegraph, Madras Times, Public Health Engineer, Lloyd's Newspaper, Harwich Free Press, Health, Norfolk Daily Standard, Northern Chronicle, Kentish Observer, East Anglian Daily Times, Market Rasen Mail, Colchester Mercury, Public Opinion Coventry Daily Telegraph, Hertfordshire Mercury, Surrey Advertiser, Mining Journal, Reading Mercury, City Press, Cape Register Warwick Times, Cambridge Gazette, Stirling Journal, Derbyshire Courier, Weekly Free Press and Aberdeen Herald, Local Government Chronicle, Local Government Journal, Bristol Times and Mirror, Public Health, Liverpool Journal of Commerce, &c., &c.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 7th, 1899.

Date.		Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radiation Vacuo.	Maximum Temp. Shade.	Min. Temp	Wet Bulb	Dry Bulb.	Remarks at 8.30 A.M.
Dec.	1	30·11	W.	...	67	55	37	46	49	Overcast
,,	2	30·32	S.W.	0·29	62	50	40	39	40	Foggy
,,	3	30·49	W.	...	46	46	33	34	36	Foggy
,,	4	30·27	W.	...	68	52	35	44	45	Cloudy
,,	5	30·13	S.W.	0·09	54	54	45	50	51	Raining
,,	6	29·88	S.	0·18	58	56	50	51	51	Overcast
,,	7	29·60	W.	0·10	48	48	48	47	48	Foggy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (11th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (12th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.).

WEDNESDAY (13th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.) Cancer (2 P.M.).

THURSDAY (14th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.).

FRIDAY (15th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.).

SATURDAY (16th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 P.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (11th).—MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Rolleston and Mr. Turner: Operative Treatment in Cases of Ascites.—Mr. J. D. Malcolm: Fifty Successful consecutive Cases of Ovariotomy reported three years after the operations.

TUESDAY (12th).—CHILDHOOD SOCIETY (Library of the Sanitary Institute, 72, Margaret-street, W.).—8 P.M. Mr. F. Harston: Social and Moral Aspects of Education and Training of Poor-law Children.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN (17, Bloomsbury-square, W.C.).—8 P.M. Prof. J. M. Thomson: Some Relations of Water to Other Substances (illustrated by experiments).

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Adjourned Discussion on the Open-air Treatment of Tuberculosis. Speakers:—Dr. S. Martin, Dr. J. S. Pollock, Dr. Washbourn, the President, &c., &c. The opener, Dr. K. Fowler, will reply.

WEDNESDAY (13th).—HUNTERIAN SOCIETY.—8.30 P.M. Pathological Meeting. Specimens will be shown by Dr. Hingston Fox, Dr. F. J. Smith, Mr. Targett, and other Fellows.

THURSDAY (14th).—OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Patients and Card Specimens. 8.30 P.M. Clinical Evening. Mr. G. Keeling: Congenital Subluxation of Lens.—Dr. C. Shaw: Sympathetic Ophthalmitis after Enucleation.—Mr. J. Griffith: Case of Sarcoma of the Upper Conjunctival Cul de sac.—Mr. A. H. Thompson: Embolism of the Central Artery of the Retina.—Mr. G. D. Maynard: Nasal Duct Dilator.—Mr. G. Brooksbank James: Changes in the Macula Area consequent upon Injury.

BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square, W.).—8 P.M. M. Doyen (Paris) will give a Cinematographic Demonstration to illustrate his Operative Procedures on the Abdominal and Pelvic Organs.

FRIDAY (15th).—EPIDEMIOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Meeting.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (11th).—WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. Moullin: The Diagnosis and Treatment of Pelvic Hæmorrhage.

TUESDAY (12th).—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-sq., W.C.).—3.30 P.M. Dr. Buzzard: Demonstration of Two Cases of Myasthenia Gravis Pseudo-paralytica.

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM (73, Welbeck-street, W.).—4 P.M. Clinical Demonstration:—Dr. H. Campbell: Cases of Syphilitic Affections of the Brain.

LONDON THROAT HOSPITAL (204, Gt. Portland-street, W.).—4.30 P.M. Dr. F. Potter: The Use of Instruments. (Post-Graduate Course.)

WEDNESDAY (13th).—HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. H. Mackenzie: Bronchiectasis.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—4.30 P.M. Dr. Biddowes: Pigmentary Affections. (Post-graduate Course.)

THE SANITARY INSTITUTE, (Parkes Museum, Margaret-street, W.).—8 P.M. Discussion on the Health of Scholars with special reference to the Education Code and the Board of Education Act, 1899 (opened by Dr. A. Newsholme).

THURSDAY (14th).—CHARING-CROSS HOSPITAL.—4 P.M. Mr. Gibbs: Demonstration of Surgical Cases. (Post-Graduate Course.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Still: Some Gastro-intestinal Disorders of Infancy.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Mr. Bidwell: The Methods of Performing Intestinal Anastomosis.

FRIDAY (15th).—LONDON THROAT HOSPITAL (204, Gt. Portland-street, W.).—4.30 P.M. Mr. Waggett: Prognosis in Chronic Deafness. (Post-graduate Course.)

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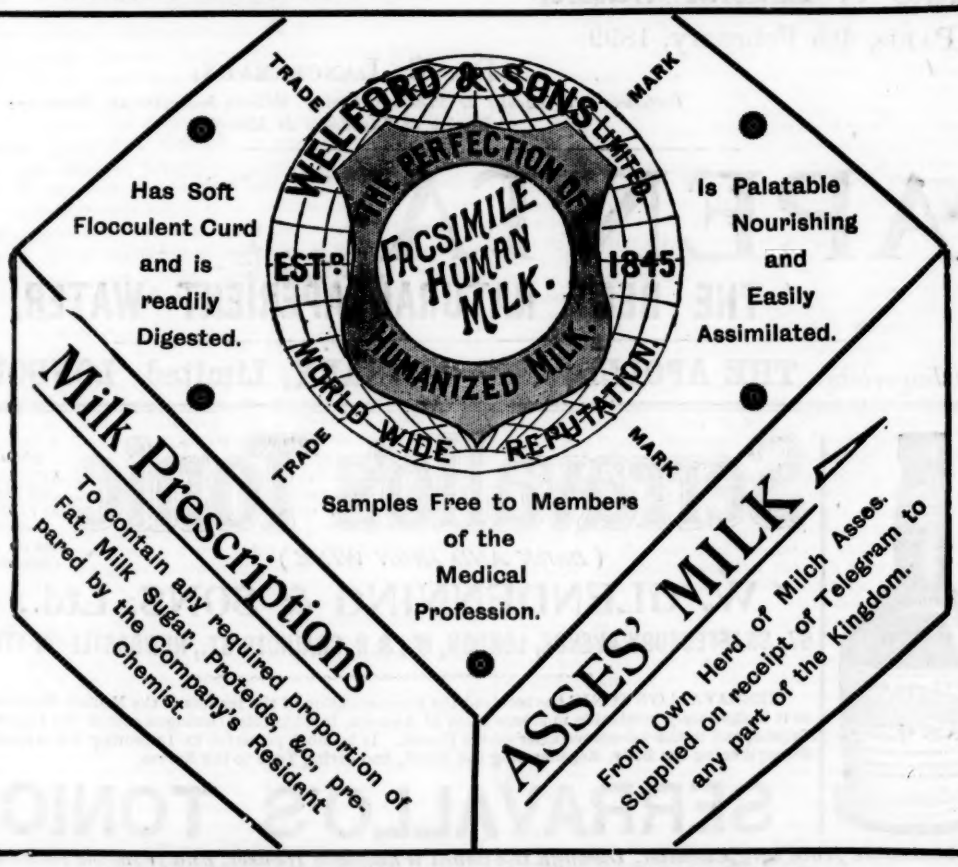
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